



# **PARTNERSHIP FOR PATIENT PROTECTION (P4P2)**

**SELF-HARM PROJECT**

**EVALUATION REPORT**

**JANUARY 2018**

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## **EXECUTIVE SUMMARY**

The Partnership for Patient Protection (P4P2) is an international collaboration with The Risk Authority (TRA) Stanford and several other healthcare providers in both the UK and US. It pairs together leading edge software and design thinking methodology to identify and mitigate key clinical risks.

Self-harm on inpatient wards in Secure and Local divisions was selected as the focus for Mersey Care owing to the frequency of incidents, a significant upward trend during the five year period under analysis, and because of the levels of restraint often used to prevent such behaviour.

The approach was piloted on 4 'hot spot' wards – Arnold and Poplar in Secure, and Dee and Harrington in Local – during 2017, each of which implemented bespoke packages of 2-3 interventions, developed using design thinking methodology.

The project set out to achieve a 20% reduction in reported incidents of self-harm across the wards in question, and exceeded this with an overall reduction of 55% on conclusion of the pilot. The greatest reductions were seen on Harrington and Dee wards (91% and 63% respectively), with Arnold and Poplar wards actually reflecting a slight upward trend.

It's important to acknowledge the differing patient profiles across the two divisions though, and the skewing effects of a small number of patients on Arnold and Poplar who experienced unsettled periods particularly towards the end of the pilot. Staff moves were also cited as barrier to further progress on these two wards.

Before and after measures indicated a positive shift of 10% in staff perception of their approach to self-harm, and this was supported by the anecdotal evidence. Project interventions were noted as "absolutely central" to the improvements observed and one ward proudly described themselves as having become a "self-harm helpline" offering advice to other wards and even to another Trust.

Changes in patient perception were more equivocal when considered against relevant items on the Inpatient Survey Report, however, the anecdotal evidence again reflected more of a positive experience.

The Return on Investment (ROI), completed in conjunction with TRA Stanford, indicated a range of 89% to 158% with the most likely return being in the region of 130%.

The report concludes with a recommendation to divisional leadership teams to consider the potential for 'spread' across other areas, and to embed interventions as an integral component of the Reducing Restrictive Practices programme.

## **1. INTRODUCTION**

In the latter part of 2015 Mersey Care NHS Foundation Trust<sup>1</sup> embarked on a unique collaboration with The Risk Authority Stanford (TRA Stanford). The Partnership for Patient Protection, or P4P2 as it is known, is an international programme which pairs together leading edge software and 'design thinking' methodology to identify and mitigate key clinical risks within an organisation. On commencement of the programme, a series of risk-related data sets (i.e. Datix and Ulysses incident reports, claims, complaints, and root cause analyses) spanning the previous five years were submitted to TRA Stanford and analysed using their proprietary software, Innovence Pulse. Based on the output report, the expectation was that each division would select one of the key risk areas identified and utilise design thinking to develop appropriate mitigations, which could then be piloted during the course of 2017 so as to test effectiveness and inform future decisions regarding the potential for scaling across other areas.

This report describes the pilot phase of the self-harm project which was subsequently implemented within Secure and Local divisions; led by the core project team of Dr Tim Riding (Associate Director), Steve Bradbury (Deputy Director of Improvement and Innovation), Dr Cecil Kullu (Consultant Psychiatrist) and Steve Morgan (Director of Patient Safety). It starts with an explanation as to why this particular risk area was selected, before moving on to describe the methodology of design thinking in general terms with a more specific account of how it was applied within the current context. Interventions developed during the pilot phase of the project are outlined, before their impact is considered – both in terms of the frequency of reported incidents *and* on a range of other measures. Issues of scalability are then considered, and the report concludes with a recommendation for consideration by divisional leadership teams.

## **2. BACKGROUND**

After submitting relevant data to TRA Stanford, the Trust received a 'risk identification' report as the initial output, highlighting the foremost clinical risks within the organisation. After due consideration, one particular area was selected for further analysis and a 'deep dive' report generated. Within Secure and Local divisions self-harm was selected, not only because it represented the third most frequent incident type within the Trust, but also because of a significant upward trend over the period in question; rising from 400 incidents per year in 2011 to 1,400 in 2015 – an increase of some 250%. Furthermore, within the context of 'No Force First' it was significant to note that as many as 61% of self-harm incidents resulted in the use of physical restraint, which comprised 45% of all restraint used across 'hot spot' wards. So,

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<sup>1</sup> At the time of programme inception Mersey Care had not yet achieved Foundation Trust status. Calderstones Partnership NHS Foundation also existed as an entity in its own right rather than the Specialist Learning Disabilities Division which it has now become following acquisition by Mersey Care in July 2016.

having identified self-harm as the risk to mitigate, the next step was to apply design thinking and generate a range of appropriate interventions.

The origins of design thinking date back to the foundation of IDEO in the early 1990s, a now international design and consulting firm based in Palo Alto, California. With an initial focus on more traditional design work for large technology companies, by the turn of the millennium IDEO were increasingly asked to focus on the design of consumer *experiences* as opposed to *products*. Through this shift the term 'design thinking' was coined, soon to be distinguished as an approach to generating solutions focused as much on emotional meaning as functionality. Comprised of three key stages – inspiration, ideation and implementation – the process leads from a deep, empathic understanding of the problem (inspiration), to generation and testing of ideas (ideation), to the launch of workable solutions (implementation).

### **3. PROJECT OUTPUTS**

#### **3.1 Application of Design Thinking**

The first stage of the process was, therefore, to gain a deep, empathic understanding of the problem from the end users' perspective; in this case nurses, members of the multi-disciplinary team and service users on the four hot spot wards: Dee and Harrington in Local division and Arnold and Poplar in Secure. The project team set out in the summer of 2016 to immerse themselves in the ward environments over a period of several weeks, carrying out observations, attending key meetings, reviewing clinical documentation, and conducting a series of loosely structured interviews. Emerging themes were synthesised and reflected back to ward teams, so as to sense-check initial findings and potentially uncover new insights.

Having corroborated key themes and insights, the project team transitioned into the ideation phase, collaborating closely with end users in each of the four wards in turn to generate potential solutions which were likely to have the greatest impact and could be delivered within the constraints of budget and schedule. This, of course, is where account was also taken of research evidence and best practice in other services, before moving into the action phase of the cycle. The challenge then became one of turning the best ideas into actual interventions which could be tested, iterated and refined through a series of prototypes of increasing sophistication.

#### **3.2 Project Interventions**

A series of eight interventions were developed in total and these were implemented incrementally from December 2016 onwards in packages of 2-3 per ward as described in section 3.3 below. The interventions included:

- Using **reflective practice** sessions to explore psychological formulations and the extent to which these inform daily nursing care;

- The provision of a wider range of **structured activities**, meaningful to individual service users, advertised through a regular morning community meeting;
- An **Emotional Coping Skills** group, based on the principles of Dialectical Behaviour Therapy (DBT), and delivered by the ward psychologist. A number of nurses were also trained as '**DBT coaches**' to support service users in between group sessions;
- This was augmented through the provision of **alternatives to self-harm** (including soothe boxes and ice bottles), derived, in collaboration with service users, from the self-help guide created by the Royal College of Psychiatrists;
- **Training** for ward staff in – in personality disorder and the prevention of self-harm – exploring issues such as causation, treatment and management, and personal resilience;
- One ward implemented the Safewards intervention '**Clear Mutual Expectations**' in an attempt to establish clear boundaries as the basis for other interventions;
- Another ward introduced **Safety Huddles**, a daily frontline team discussion focused on preventing a particular aspect of patient harm – in this case self-harm;
- And finally, a collaborative effort with service users to produce a highly personalised document referred to as "**Know Me**", containing vital information as to how someone should be supported at times of heightened risk.

### 3.3 Clinical Areas

Interventions were implemented across the four pilot wards as follows:

#### **Arnold Ward:**

- Reflective practice;
- Training in personality disorder and the prevention of self-harm;
- In addition, the ward also set out to establish 'three stable and consistent nursing teams' by seeking assurances from divisional leaders that staff would not be re-deployed from the ward during the pilot phase unless it was absolutely unavoidable.

#### **Dee Ward:**

- Reflective Practice;
- Emotional Coping Skills Group;
- Structured Activities.

#### **Harrington Ward:**

- Emotional Coping Skills Group;
- Alternatives to Self-Harm (soothe boxes and ice bottles);
- Clear Mutual Expectations.

### **Poplar Ward:**

- Safety Huddles;
- Training in the Prevention of Self-Harm;
- Know Me.

## **4. PROJECT IMPACT**

From an ‘implementation science’ perspective the impact of a project can be considered within three outcome domains – implementation, service, and patient. *Implementation* outcomes are concerned primarily with acceptability and degree of penetration of the selected interventions, and are described within this report in terms of process measures and staff perception. *Service* outcomes focus on efficiency and effectiveness, whereas *patient* outcomes are concerned with satisfaction and symptomatology. In practice there is something of an overlap in these latter two domains, so for the purposes of this report they are described in terms of patient perception and incident frequency. The report also considers efficiency in terms of ‘return on investment’ and focuses in particular on the use of bank staff for the purpose of facilitating enhanced observation.

Given the nature of the project (i.e. patient safety / quality improvement) outcome measurement was at the level of ‘measurement for improvement’ as opposed to ‘measurement for research’ and did not, therefore, seek to eliminate or control for the effect of confounding variables. As such it is important to acknowledge the potential impact of other initiatives such as the psychology recruitment drive in Local division, safety planning on Harrington ward, or zonal observations on Dee ward for example. In other areas the project seemed to have a ‘spin off’ effect with ward teams going on to develop new interventions of their own volition, such as ‘safe boxes’ on Arnold ward and social activities on Poplar. The qualitative data included in this report, however, does allow the reader to make a tangible connection between project interventions and the outcomes described.

### **4.1 Process Measures**

In order to understand the extent of implementation across each of the pilot wards it is necessary to consider each ward, and their specific interventions, in turn. **Arnold ward** set out to establish three stable and consistent teams as the basis for its other planned interventions. Unfortunately, however, since the pilot phase of the project began some 18 of its 32 whole-time equivalents have been redeployed to other wards. A total of 27 staff were trained in either personality disorder or the prevention self-harm (8 having so far attended both sessions), 7 of which were amongst those to be moved, leaving 20 of the current establishment trained. In terms of reflective practice, this has taken place consistently on just one of the three nursing groups; twice during every six week period as planned. The other two nursing groups have undergone appointment of new charge nurses and one in particular has experienced

high levels of sickness. Reflective practice on these groups has therefore been more sporadic and focussed instead on building a sense of team rather than on self-harm.

The first of the interventions to be implemented on **Dee ward** was an enhanced range of structured activities in which patients were engaged via a daily community meeting. These meetings have taken place consistently since their inception and are routinely attended by anywhere between four and eleven patients. The emotional coping skills group ran for the first time in March 2016, since when an additional nine cycles have been completed. Approximately 50 patients have attended one or more group sessions. Reflective practice, however, has proved more difficult to embed. Early attempts to establish this as a forum to discuss self-harming behaviour were beset by staffing pressures and consequently the intervention has not been embedded.

On **Harrington ward** the emotional coping skills group has completed twelve cycles and was attended by an average of five patients per cycle. Approximately sixty patients have therefore benefited from this intervention. With regard to the alternatives to self-harm, soothe boxes have been created in collaboration with all of those patients attending the emotional coping skills group and approximately forty patients have made regular use of the ice-bottles. The final intervention – clear mutual expectations – is not yet fully embedded however. The definitive list of expectations has been coproduced through a series of staff and community meetings, with the wording of each reviewed by the ward psychologist, although the actual posters themselves are still awaiting printing.

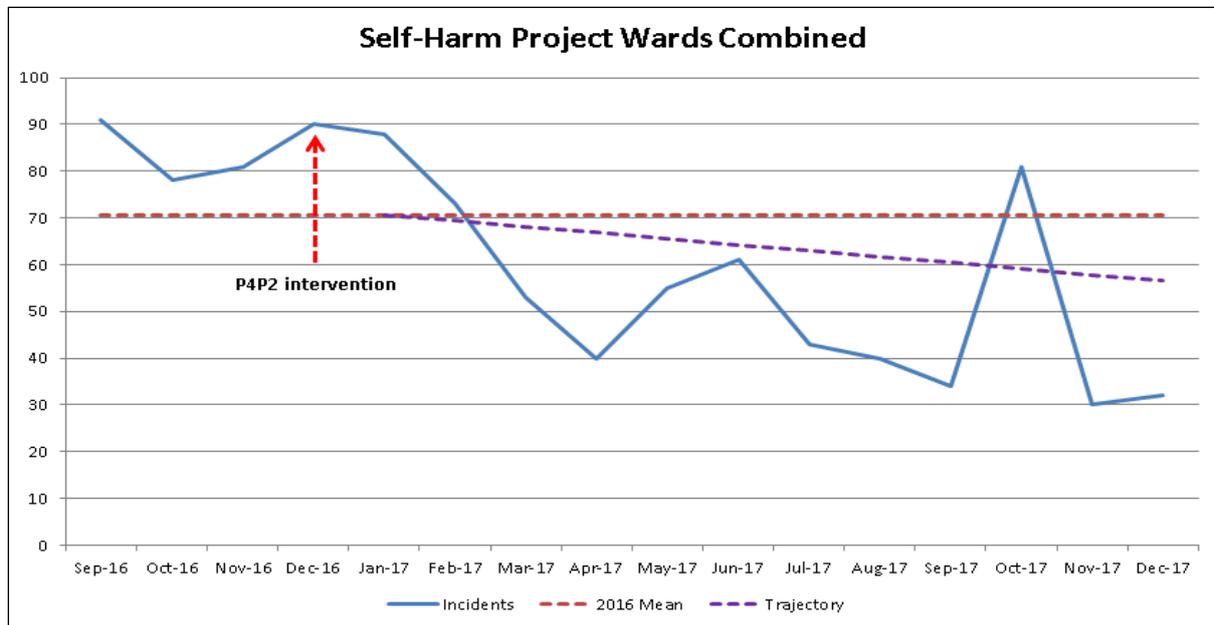
The first intervention to be implemented on **Poplar ward** was the ‘know me’ template. It was completed in collaboration with all patients initially, although as new patients have been admitted to the ward it has sometimes taken a short while to stabilise high levels of acuity and establish a rapport. Safety huddles are now well embedded and take place between three and five times per week, lasting for approximately twenty minutes and attended by an average of six staff. With regard to the training, staffing pressures necessitated a pause with the initial plan, however, 2 sessions have now been delivered and 22 staff trained. A further session to capture outstanding staff was planned for November and then December 2017, but had to be cancelled on both occasions, again owing to staffing pressures.

## **4.2 Incident Frequency**

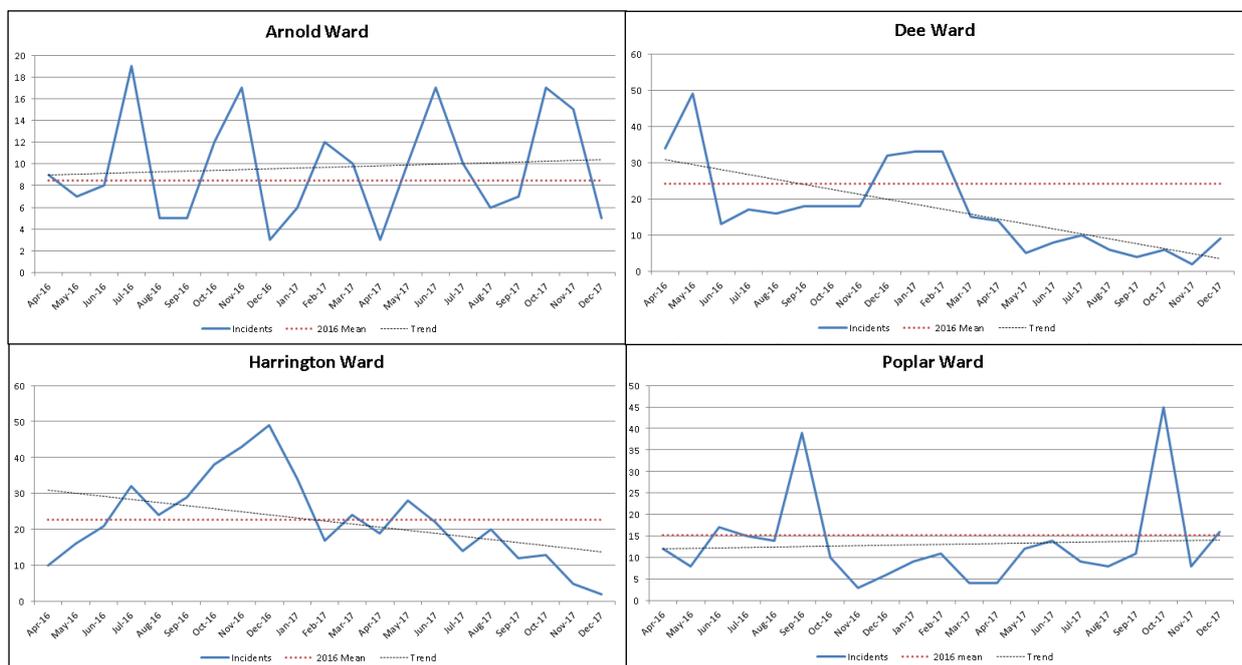
The project set out to achieve a 20% reduction in the frequency of reported self-harm incidents during the twelve months of the pilot phase. It can be seen from figure 1 below, that on conclusion of the pilot an overall reduction of 55% was achieved when

compared against baseline<sup>2</sup>. It seems reasonable to conclude, therefore, that the pilot met its stated objective.

**Figure 1. Incident frequency: project wards combined**



**Figure 2. Incident frequency by ward**



Further analysis of these results reveals the greatest impact can be observed on Harrington and Dee wards (91% and 63% reductions respectively), whereas the trend on Arnold and Poplar wards is much less significant. Although Arnold's position

<sup>2</sup> The baseline was calculated from the mean average monthly total of incidents for the twelve month period (i.e. 2016) prior to any project interventions being implemented.

at the end of the pilot represents a 41% reduction when compared against baseline, the overall trend is slightly upwards. Poplar’s closing position represents a 5% increase in the frequency of incidents, also displaying a slight upward trend over the course of the pilot (see figure 2). It is important to acknowledge the impact of a small number of specific patients, however, who experienced particularly unsettled periods towards the end of the pilot and exerted a disproportionate effect on the results.

### 4.3 Staff Perception

In order to gauge the perception of staff as to whether project interventions were addressing the themes identified, a simple six item questionnaire was developed and administered before and after the pilot phase of the project (see Appendix A). It can be seen from figure 3 that scores improved following project interventions across all six items. In summary, staff felt there was a clearer and more consistent approach to the care and treatment of people who self-harm. They had a deeper understanding of the specific contribution they made and received better support to fulfil their role. Incidents of self-harm were increasingly seen as opportunities to learn and improve patient care, and although a significant number of staff still experienced personal stress as a result of supporting patients who self-harm, this was somewhat diminished. Total scores reflected a 10 point positive shift from 71% to 81%.

**Figure 3. Staff perception: project wards combined**

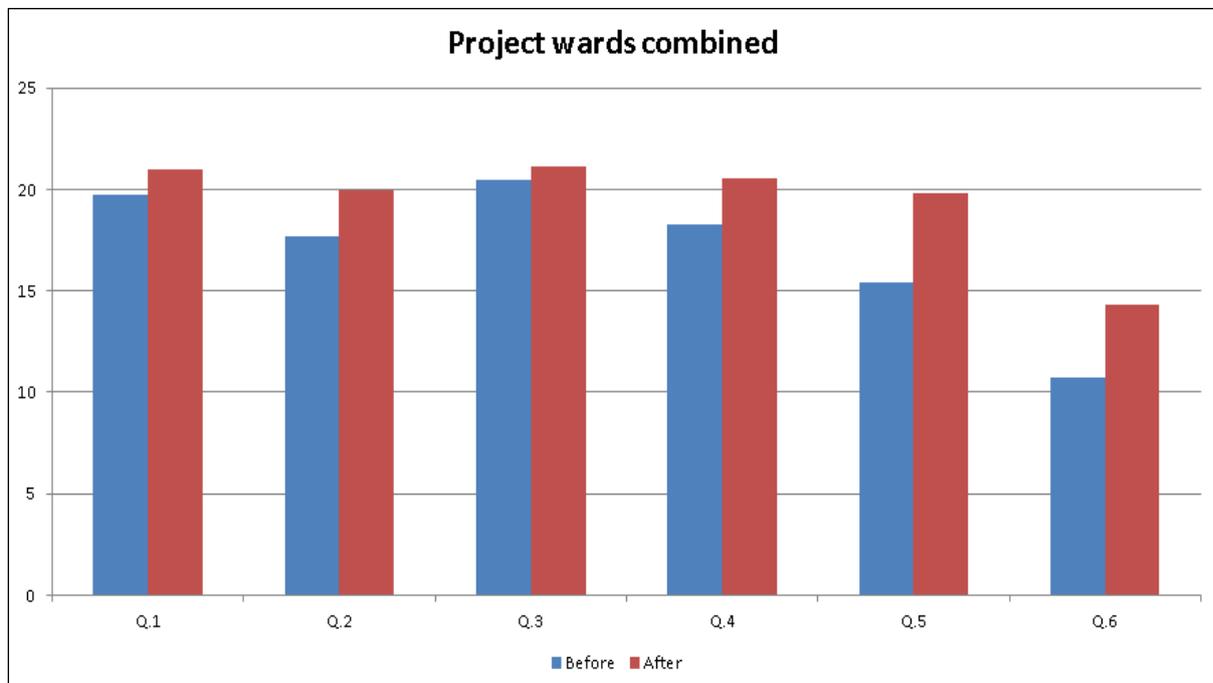
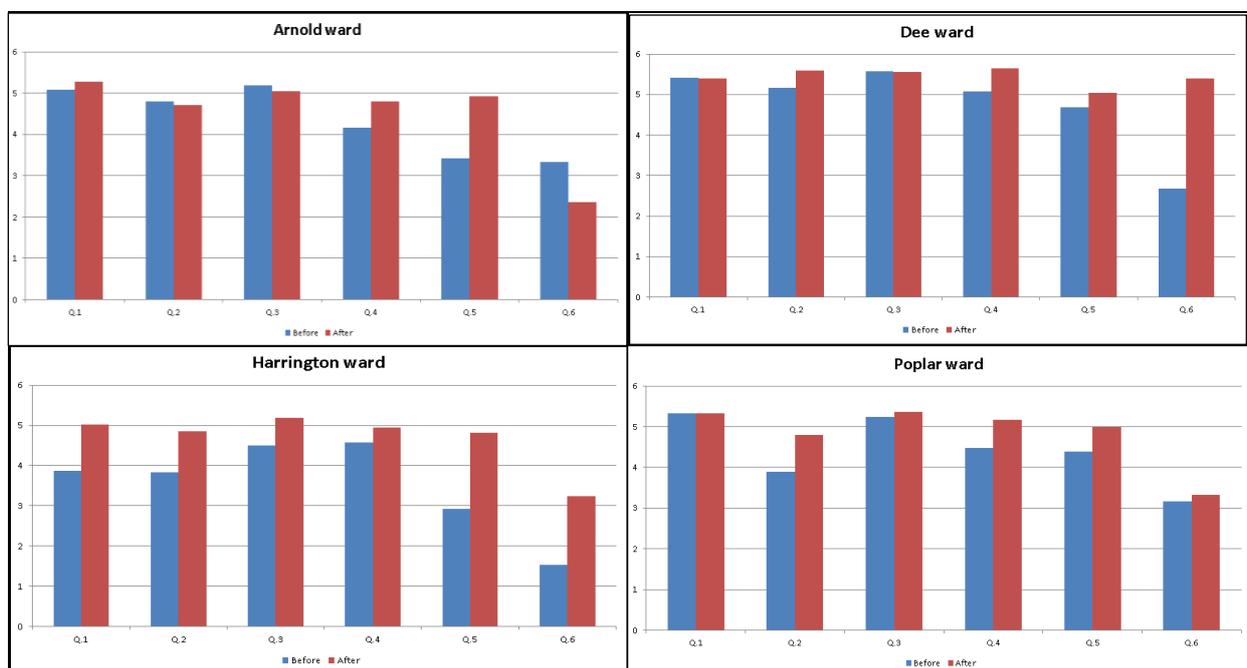


Figure 4 provides a breakdown of these scores by ward. Arguably the greatest improvements were seen on Harrington with positive shifts on all six items and a total improvement of 19 points from 59% to 78%. Arnold saw the smallest shift with improvements on 3 out of the 6 items and a total shift of 3 points from 72% to 75%.

Ward staff reported the high volume of staff moves as the main barrier to further progress, undermining all three project interventions. Dee ward achieved improvements on 4 of the 6 items and an overall shift of 12 points from 79% to 91% with staff describing the “absolutely central” contribution of project interventions. Poplar ward saw improvements on 4 out of 6 items and an overall improvement of 6 points from 74% to 80%. Staff moves, particularly at a senior level, were also cited as a barrier to further progress on Poplar.

It’s apparent that potential benefits extend beyond these six items as well though. For example, the nurse leadership team on Arnold were able to describe how staff are now more resilient to the impact of self-harm... “It’s still disturbing to see when you’re in the moment, but people tolerate it better now and the effects are not long-lasting. Staff are not going off sick with it anymore. The training definitely helped. It’s probably the best thing we’ve done.” The team also described how they had been contacted for advice by other wards and even another Trust on one occasion... “We’ve become like a self-harm helpline!” Staff on Dee were also able to describe how they had used the sense of ownership instilled by design thinking to ensure interventions were delivered on a consistent and sustainable basis... “It [design thinking] is our best weapon against complacency.”

**Figure 4. Staff perception by ward**



Improvements were also noted by staff not directly involved in the project. For example, members of the No Force First team observed the contribution of the ‘safety huddles’ intervention in helping to promote a calm and compassionate approach to challenging behaviour on Poplar ward, and creation of a more positive and therapeutic environment overall. The team were congratulated on their attempts to embed Trust values and the consequent reduction in the use of physical restraint.

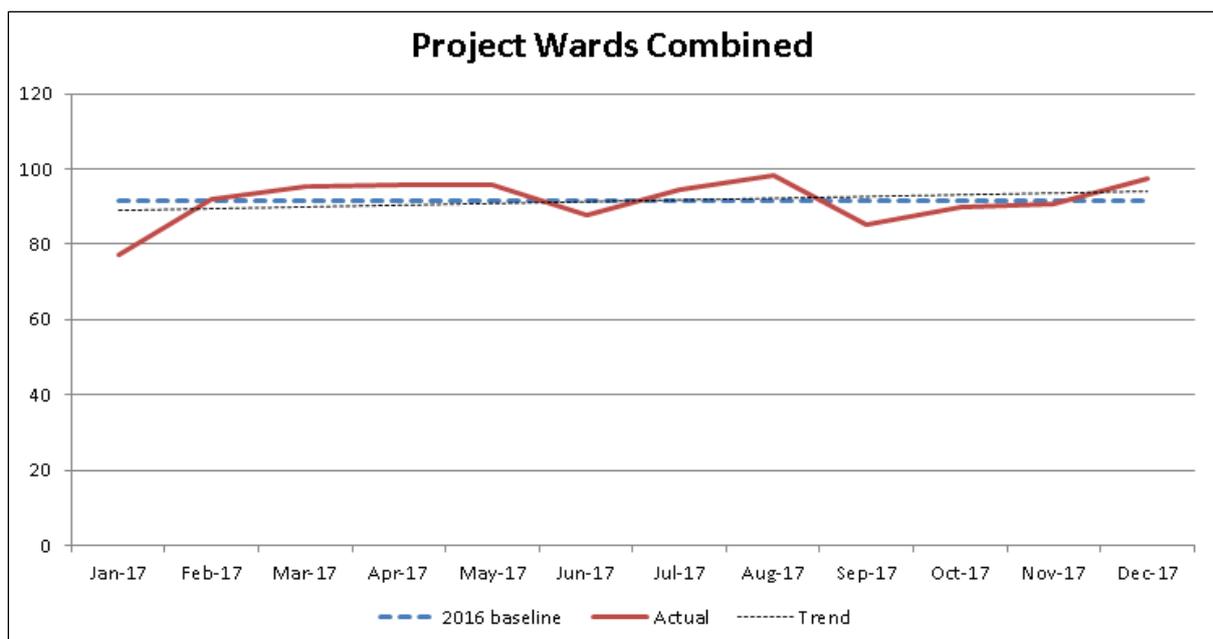
These changes were particularly evident following the appointment of the new ward manager, emphasising the absolutely critical role of senior ward leadership.

#### 4.4 Patient Perception

Rather than create a bespoke instrument to determine the impact on patient experience, the project drew instead on relevant items from the inpatient survey report hosted on 'Business Intelligence Today'. In view of the interventions developed under the auspices of the project, the following items were considered to be of interest:

- Item 8: Do you feel involved in decisions about your care and treatment?
- Item 10: Do you feel supported in recovery and self-management?
- Item 17: Does your care plan include what to do in a crisis?
- Item 21: Can you discuss your worries or concerns with staff?
- Item 26: Do you have access to meaningful, culturally appropriate, activity 7 days a week?

**Figure 5. Inpatient survey report: project wards combined**

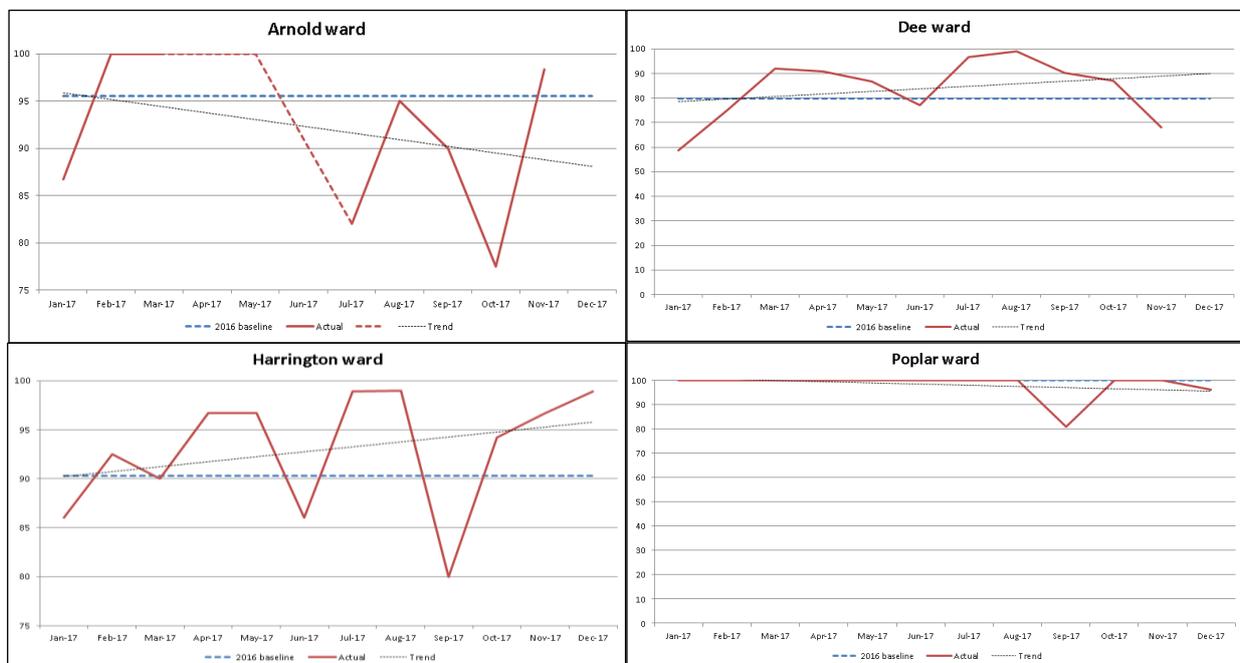


The results, however, are somewhat inconclusive. Total scores for the four project wards combined reflect an increase in patient satisfaction of 7% with a slight upward trend across the life of the pilot (see figure 5). When the scores for individual wards are considered though, the picture is more variable. Dee and Harrington wards, for example, both reflect upward trends, despite the former ending the pilot below baseline. Conversely, Arnold and Poplar wards both reflect a downward trend, with Arnold's significantly more pronounced, and Poplar remaining in the 'green' zone throughout the pilot (see figure 6). Numbers completing the survey on a monthly basis are comparatively low and the ratings of just one patient can, therefore, skew

the results, so it may be helpful to interpret these results in conjunction with informal *qualitative* feedback received from patients.

For example, one patient on Arnold ward described how collaboration with the nursing team had really helped him to understand and deal with the factors which give rise to his self-harming behaviour. The patient shared with staff how much of his behaviour was triggered by unpleasant emotions surrounding his gender-identity. The team subsequently worked with him to formulate a self-harm care plan, which includes the use of ‘make-up’, and the patient now reports how this willingness from the care team has improved considerably his mental state and helped him to find alternative coping strategies. Staff cite the personality disorder and self-harm training, and reflective practice sessions, as important factors supporting this new approach.

**Figure 6. Inpatient survey report by ward**



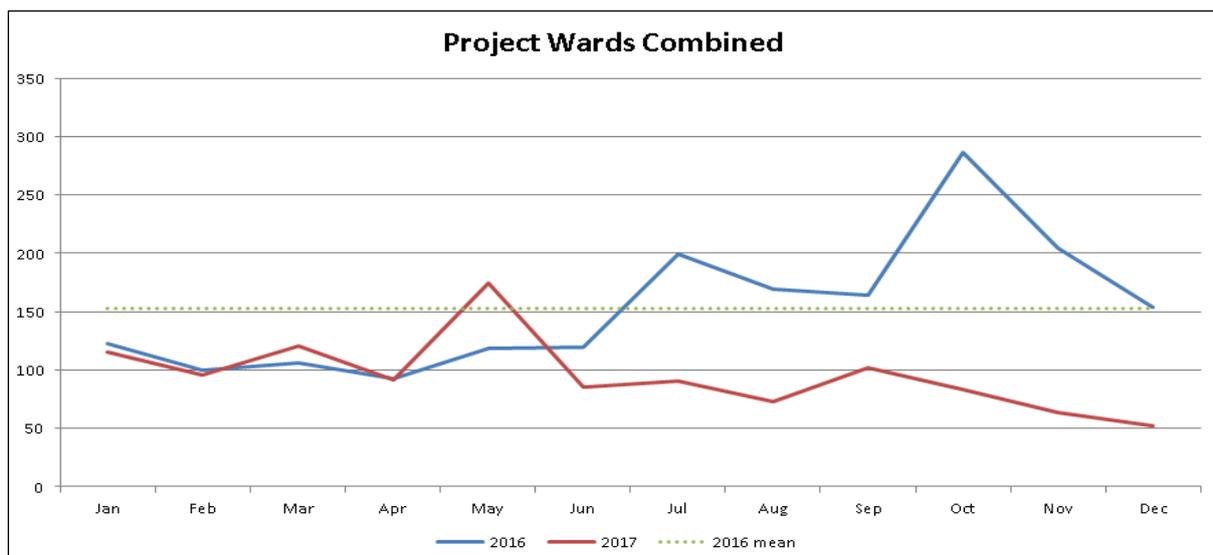
Feedback from patients on Harrington ward has also been generally very positive, particularly in relation to the emotional coping skills group. Group sessions were consistently rated as helpful, supportive and easy to understand. Patients went on to describe benefits of being able to understand different emotions, knowing how to break problems down and ‘cope ahead’, and having a range of new skills and tips to call upon to help mitigate ‘future episodes’. One patient even expressed her sorrow at not being able to complete the group owing to her imminent discharge, but stated she would definitely take the pack home with her “...as I know it will benefit me immensely.”

## 4.5 Efficiency

As an integral requirement of the project an exercise was undertaken to determine the likely Return on Investment (ROI) of project resources. This entailed an assessment of the costs to develop and implement agreed interventions compared against the potential savings generated from the forecast reduction in incidents. Each element of cost was considered in turn – incident-related activity, bank and agency use, and staff turnover being the main elements – allowing overall costs to be constructed and transposed onto the template provided by TRA Stanford. The exercise generated a potential ROI in the range of 89% to 158% with the most likely return being in the region of 130% (i.e. for every £1,000 invested in the project, £1,300 is likely to be returned in each year). The calculations are included at Appendix B and further detail can be provided on request.

To illustrate how this applies in practice, further analysis has been undertaken in relation to the use of bank staff to support delivery of enhanced observations for the purposes of managing the risk of self-harm. The hypothesis being that if the risk of self-harm can be mitigated through the use of more therapeutic interventions then the need for enhanced observations, and hence additional bank staff, will be reduced. Whilst there may be caveats in relation to data quality and alternative risks requiring the use of enhanced observations, it can be seen from figure 7 that the use of bank shifts for project wards combined fell by 37% during the course of the pilot<sup>3</sup>. Three of the four project wards achieved a reduction in such bank use (see figure 8) with savings ranging from £12,333 (Harrington) to £30,147 (Arnold) to £44,192 (Dee) per annum<sup>4</sup>.

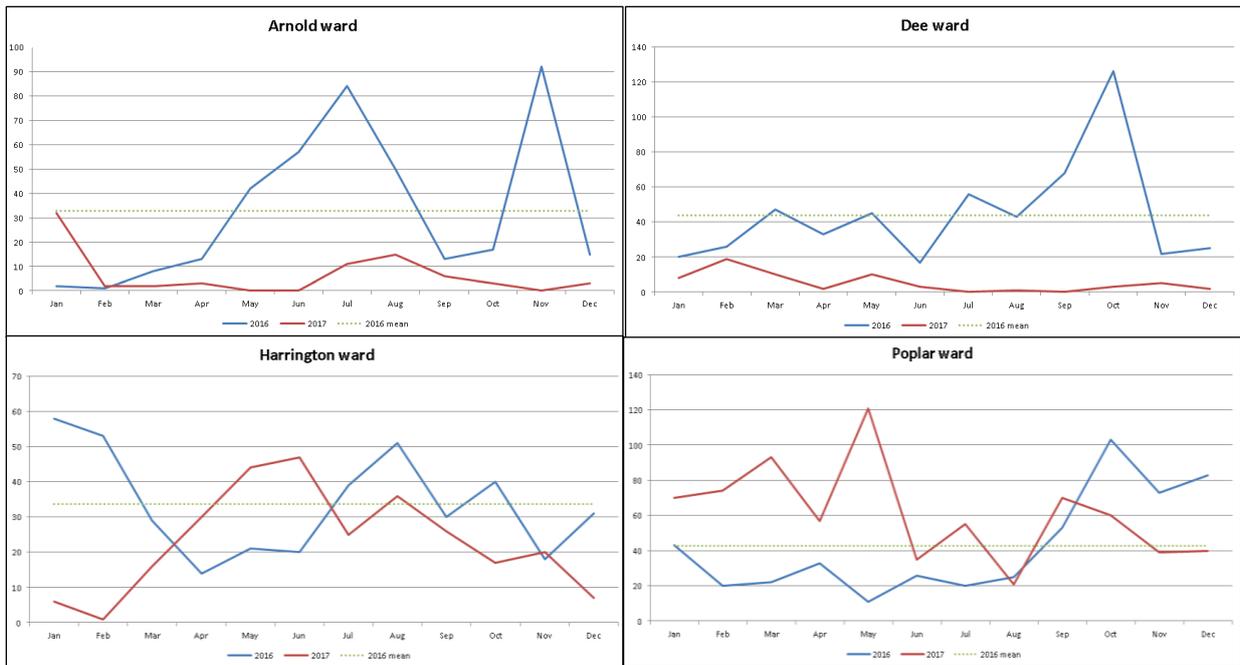
**Figure 7. Bank shifts to cover enhanced observation: project wards combined**



<sup>3</sup> This is a comparison between the 2016 and 2017 average monthly use of bank shifts to cover enhanced observations.

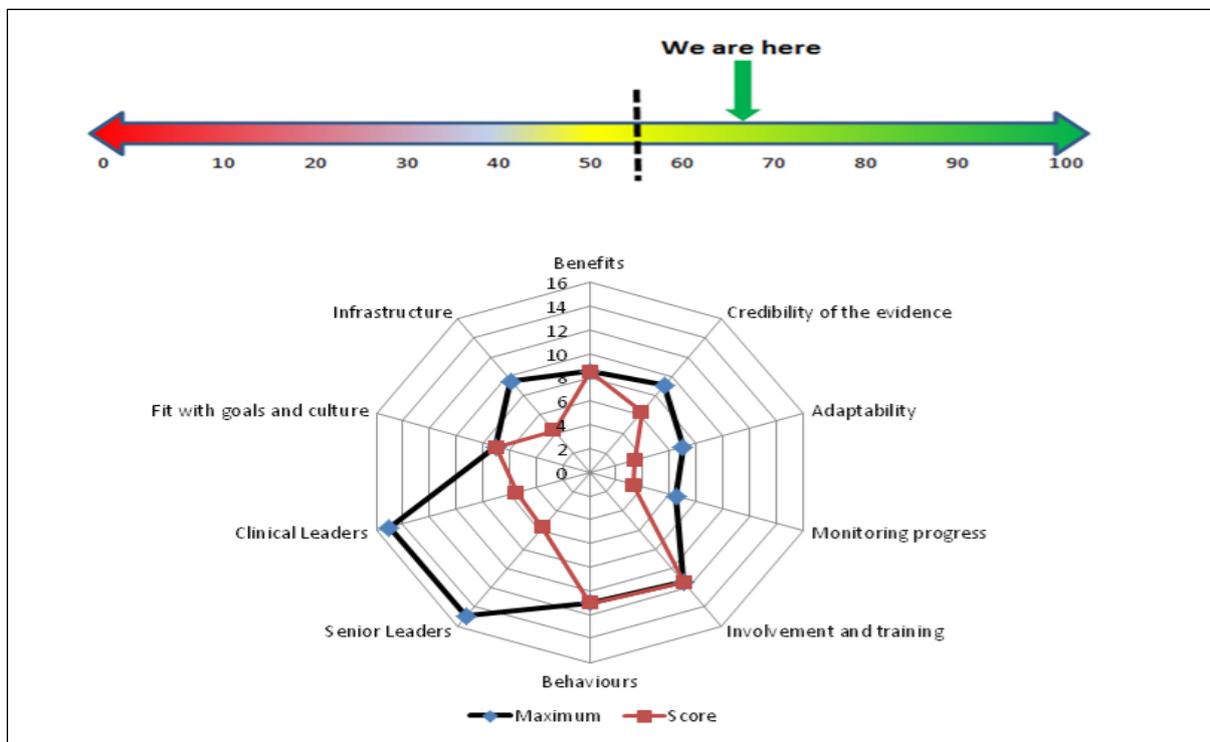
<sup>4</sup> This calculation is derived from the reductions achieved in average monthly bank use across each of the wards, based on a split of 77% unqualified and 33% qualified (as per 2016 bank usage data).

**Figure 8. Bank shifts to cover enhanced observation by ward**



#### 4.6 Sustainability

**Figure 9. NHS Sustainability Model and Guide scores**



In order to determine the sustainability of project interventions the 'NHS Sustainability Model and Guide' was completed, the results of which can be seen above in figure 9. Whilst the overall score achieved for the project exceeded the 55% threshold deemed to represent a favourable chance of success, the exercise

highlighted two areas of potential weakness; namely the engagement of senior *and* clinical leaders. Since the exercise was completed, work has been undertaken at project level to engage clinical leaders in supporting interventions across the respective wards. A virtual network has also been established – using the Basecamp platform and bi-annual ‘sharing the learning’ events – in order to promote opportunities for ongoing learning and peer support. The support of named senior managers in a more systematic way is still to be addressed, however, and will doubtless be a critical success factor in achieving further spread and long-term sustainability.

## **5. CONCLUSION**

Based on the available evidence it seems reasonable to conclude the project has achieved its objective of reducing by 20% incidents of self-harm on project wards; having exceeded the target quite considerably with an overall reduction of 55% on conclusion of the pilot. Staff perception has also clearly improved, with an overall improvement of 10% on the selected indicators, and all four wards showing a positive shift of some magnitude. Such improvements are supported by the anecdotal evidence gleaned from ward staff, who, despite certain frustrations, consistently described the positive impact of the project. Improvements in patient perception are more difficult to gauge. Although an overall improvement of 7% was achieved on relevant inpatient survey report measures, this is not replicated when drilled down to ward level. Again though, anecdotal evidence collected from patients was generally very positive. In terms of efficiency, the potential return on investment of project resources (including the clinical time to implement interventions) is in the range of 89% to 158%, with the most likely scenario being a return of 130%.

On closer examination though it can be seen the results are somewhat more variable. For example, reductions in the frequency of incidents are far more pronounced on Dee and Harrington wards than they are on Arnold and Poplar. And whilst such variance might be explained, at least in part, by the different patient profiles across secure and acute services, the stability of nursing teams also seems to be a significant factor. Indeed, informal feedback from nursing staff involved in the project reveals how staff moves can have both direct and indirect effects on the presentation of various patients, and undermine the extent to which interventions are consistently embedded. So, in the face of mounting operational pressures, whilst such moves are always likely to be necessary, there is a clear case for executing them in a carefully controlled and planned manner which allows sufficient time for handover of named nurse responsibilities and establishment of new therapeutic relationships.

In terms of next steps, it is now for the divisions to determine whether or not they would like to see project interventions embedded in business as usual and possibly scaled across other wards as well. In arriving at this decision it's important to bear in

mind that self-harm incidents remain a significant contributor to the use of physical restraint, with such incidents resulting in 51% of all restraint used on the project wards during 2017. To achieve the necessary degree of spread, however, will require active leadership from senior managers so as to ensure that activities supporting sustainability and monitoring of impact become ‘baked in’ to divisional governance structures and processes. Thought must also be given as to how the impact of staff moves can be minimised as far as possible. Given the work undertaken over the previous eighteen months, the Centre for Perfect Care would be well-placed to support planning for this should it be required.

## 6. **RECOMMENDATION**

With the caveats outlined above, the recommendation from the project team is to pursue option 4 as set out in table 1 below, embedding this as a key component of the Reducing Restrictive Practices programme. In Local division, four ‘phase 2’ wards have already been identified and work commenced, although progress to date has been limited as the supporting divisional mechanisms have yet to be established. Opportunities also exist to achieve greater spread within Secure division, albeit with a similar requirement to establish supporting divisional mechanisms.

One final point worthy of note, although not within the scope of the project, relates to ward environment. Staff on Arnold ward in particular made strong representation regarding constraints within the current environment, specifically when managing the extremes of self-harming behaviour. The view was expressed that the lack of specialist facilities often necessitated a more restrictive approach than was perhaps necessary. This may be something the divisional leadership team would want to explore further within their annual planning processes.

**Table 1. Next step options for self-harm project**

Option	Impact
1. Programme closure	CfPC resources can be re-focused Good evidence of what works Benefits unlikely to be sustained
2. Continue to support phase 1 wards	Benefits sustained No spread Ineffective use of CfPC resources
3. Shift focus from phase 1 to phase 2	Phase 1 benefits unlikely to be sustained Benefits spread to phase 2 Long-term sustainability unlikely Ineffective use of CfPC resources
4. Embed phase 1 in BAU; agree phase 2	Sustainability and spread Effective use of CfPC resources Requires active divisional support

**Acknowledgements:**

The project team would like to acknowledge the invaluable support received throughout the pilot from ward leadership teams and psychology colleagues. In particular Dr Claire Iveson (Consultant Clinical Psychologist), Donna Gardiner (Clinical Psychologist), and Ward Managers Nikki Kelly, Natalie Jones, Mark Hughes and Eve Mousley and her recent predecessors.



### Appendix A: Staff Questionnaire

<b>Ward:</b>		<b>AfC Band:</b>	
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<b>1. My ward has an effective approach to the care and treatment of people who self-harm.</b>						
Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Somewhat disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Somewhat agree <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
Additional comments:						

<b>2. This approach is implemented consistently across all shifts.</b>						
Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Somewhat disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Somewhat agree <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
Additional comments:						

<b>3. I understand the contribution my role makes to implementing this approach.</b>						
Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Somewhat disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Somewhat agree <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
Additional comments:						

<b>4. I receive adequate support (e.g. training, supervision, reflective practice etc.) to carry out my role.</b>						
Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Somewhat disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Somewhat agree <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
Additional comments:						

<b>5. Incidents of self-harm on my ward are regarded as opportunities to learn and improve patient care.</b>						
Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Somewhat disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Somewhat agree <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
Additional comments:						

<b>6. Within the past month I have experienced personal stress as a result of supporting someone who self-harms.</b>						
Strongly disagree <input type="checkbox"/>	Disagree <input type="checkbox"/>	Somewhat disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Somewhat agree <input type="checkbox"/>	Agree <input type="checkbox"/>	Strongly agree <input type="checkbox"/>
Additional comments:						

## Appendix B: Return on Investment

Fiscal Year	2017	2018	2019	2020	2021
<b>Bank and Agency Use</b>					
As a result of enhanced observations (baseline)	139,953	139,953	139,953	139,953	139,953
As a result of sickness absence (baseline)	76,936	76,936	76,936	76,936	76,936
Bank and Agency Use Cost (baseline)	\$216,889	\$216,889	\$216,889	\$216,889	\$216,889
Enhanced Observations Reduction Rate	0%	36%	36%	36%	36%
Sickness Absence Reduction Rate	0%	19%	19%	19%	19%
Bank and Agency Use Costs (w/ Program)	£216,889	£152,935	£152,935	£152,935	£152,935
Bank and Agency Use Savings	<b>£0</b>	<b>£63,954</b>	<b>£63,954</b>	<b>£63,954</b>	<b>£63,954</b>
<b>Patient Injury and Additional Treatment Costs</b>					
Number of Serious Patient Injuries (baseline)	212	214	216	219	221
Average Cost of a Serious Injury	£22	£22	£23	£24	£25
Number of Minor Patient Injuries (baseline)	0	0	0	0	0
Average Cost of a Minor Injury	£0	£0	£0	£0	£0
Total Cost of Patient Patient Injury (baseline)	£4,624	£4,810	£5,004	£5,206	£5,415
Patient Injury Reduction Rate	0%	25%	50%	50%	50%
Total Cost of Patient Injury (w/ Program)	£4,624	£3,608	£2,502	£2,603	£2,708
Patient Injury and Additional Treatment Savings	<b>£0</b>	<b>£1,203</b>	<b>£2,502</b>	<b>£2,603</b>	<b>£2,708</b>
<b>Retention Costs</b>					
Number of Employees Handling Patients	30	30	30	30	30
Number of WTEs Quit (baseline)	4	4	4	4	4
Number of Nursing Aid and Patient Care Tech Quit (baseline)	0	0	0	0	0
Average Cost to Recruit & Train a WTE	£1,026	£1,026	£1,026	£1,026	£1,026
Average Cost to Recruit & Train a Nursing Aid or Tech	£1,026	£1,026	£1,026	£1,026	£1,026
Total Retention Cost (baseline)	£4,001	£4,001	£4,001	£4,001	£4,001
Total Retention Cost (w/ Program)	£2,000	£2,000	£2,000	£2,000	£2,000
Retention Costs Savings	<b>£2,000</b>	<b>£2,000</b>	<b>£2,000</b>	<b>£2,000</b>	<b>£2,000</b>
<b>On-going Costs</b>					
Maintenance Cost	<b>£0</b>	<b>£6,478</b>	<b>£6,672</b>	<b>£6,872</b>	<b>£7,078</b>
<b>Cash Flow</b>					
Cash Inflow					
Total Direct Financial Benefits	£0	£65,156	£66,456	£66,557	£66,662
Total Employee Satisfaction Benefits	£2,000	£2,000	£2,000	£2,000	£2,000
Total Patient Satisfaction Benefits	£0	£0	£0	£0	£0
Total Cash Inflow	<b>£2,000</b>	<b>£67,157</b>	<b>£68,456</b>	<b>£68,557</b>	<b>£68,662</b>
Cash Outflow					
Total On-going Costs	£0	£6,478	£6,672	£6,872	£7,078
Net Cash Flow (when in operation)	<b>£2,000</b>	<b>£60,679</b>	<b>£61,784</b>	<b>£61,685</b>	<b>£61,584</b>
Initial CashOut (Investment in 2017)	<b>£8,717</b>				
<b>Net Present Value of Benefits</b>	<b>£214,891</b>				
<b>Return on Investment</b>	<b>130%</b>				