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Usage of Electronic Interactive Feedback Surveys to Increase Quality Maturity Score Among Public Health Agencies

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Abstract

Effective involvement in the quality improvement process of an agency is essential. Employee lack of enthusiasm for quality improvement, coupled with limited access to resources for expressing concerns and new ideas, and lack of supervisor follow up produce an environment that inhibits quality improvement processes. This lack of quality improvement process stifles change within the agency. Increased quality improvement initiatives enhance the use of evidence-based processes and procedures and insure staff have input into organizational changes. A local public health agency identified quality improvement environment maturity levels as an area for growth. In response to their concern, a 14-question survey was given to 33 public health staff. The survey included questions regarding how staff feel the agency is doing with their quality improvement environment. Initial analysis of staff responses indicated lack of resources for staff to provide feedback and ideas for quality improvement initiatives. With this feedback in mind an electronic survey was created. In the future the agency will send the survey to the public health staff to promote easily accessible staff engagement in the quality improvement process. The increased engagement in the quality improvement process through the tool and follow-up from supervisors, will improve the quality maturity score, indicating a more positive quality improvement environment. Adequate usage of quality improvement projects within an agency has been shown to be extremely beneficial in the culture of the agency itself.

Introduction

Staff involvement in quality improvement projects continues to be a concern among various agencies. Oftentimes quality improvement projects get projected as work for solely supervisors or managers, however, it is essential that there is quality improvement engagement
with employees on all levels within an agency. According to the article “Creating Quality Improvement Culture Within Public Health Agencies,” agencies with positive quality improvement environments promote strong organizational culture, in addition to a shared vision and goals within the agency (Davis et al., 2014, p. 99). Therefore, it is essential to create an environment that promotes feedback and development of change. In alignment with the Stearns County Public Health Division Quality Improvement Plan, quality improvement is essential to set goals, measure progress of them, and report back on the progress occurring (“Quality Improvement Plan…”, 2018, p.2). However, Stearns County Public Health found that the quality improvement environment may be lacking within the agency, resulting in a lack of feedback and change occurring. Per facility request, the authors focused on performing a survey on the employees within the public health sector in regards to their perception of the quality improvement environment, and from there would create a tool that would promote increased engagement within all levels of the public health sector regarding involvement in the quality improvement process, thus resulting in a greater amount of change occurring. According to McConnell, quality improvement involvement is expected of the employees, so it is essential that staff know their role in the agency and abide by the agency's mission and goals. Involvement in quality improvement gives the employees responsibility, while having a backup and resources if they need assistance in the process (McConnell, 1998, p. 84).

The study advocates for more effective and accessible usage of tools to promote engagement of all employees within the quality improvement process of the agency. In coordination with the staff at Stearns County Human Services Public Health Sector, a previously produced survey aimed at bringing together the general quality improvement environment was used to compare quality improvement maturity scores over a series of years, from 2012 to
present, to decipher if previous tools for engagement have resulted in a more positive, engaging environment. A virtual survey tool would be developed to allow easy accessibility for employees to be a part of the quality improvement process in order to increase the quality improvement maturity score among the agency.

**PART A: Focus**

**Focus:** The focus of the quality improvement project for Stearns County Public Health is to reflect on the quality improvement environment of the agency, the ability for employees to contribute in decision making and to look at programs and services that are committed to quality improvement within the agency. The goal is to look at the QI maturity growth or decline over the years within each of the categories regarding quality improvement environment, and develop a tool for employees to implement the quality improvement process by utilizing the FADE model and implement a survey for employees to express concerns and contribute to decision making.

**Problem:** The problem lies within the lack of feedback response in regards to concerns and solution implementation possibilities within the Public Health Sector. Supervisors have noticed that although there are concerns arising while individuals are out in the community, there has been a lack of new ideas and solution generation among staff to resolve the concerns. Due to the nature of the agency, it is essential that all staff are involved in the quality improvement process. Due to the poor outcome in the usage of bright idea cards, it is essential that a new tool is created to promote quality improvement in regards to concerns and decision making within the agency.

**Possible Solution:** Implement a survey regarding the quality improvement environment of the agency, in addition to how likely staff are to respond and provide feedback and solutions regarding concerns. Additionally, due to feedback from employees, an electronic survey would
be implemented following the FADE model to allow for employees to implement the quality improvement process, and express concerns and contribute in decision making as a replacement for the bright idea cards.

**Reasoning Behind Decision:** There has been a lack of communication regarding concerns that are going on in the Public Health Sector. The solutions aren’t being put on the table to improve these concerns. Without expression of the concerns and solutions to implement, quality improvement of the agency is not occurring, and change isn’t being made in the Public Health Sector. The electronic version was decided due to the feedback received from employees stating that they didn’t have access to the cards, or didn’t know about them. An electronic version of a feedback/new idea solution implementation would allow for the employees to access it anytime and anywhere. Additionally, the monthly send out of the survey would keep this idea in the minds of the employees.

**Impact of the issue:** The intention of this quality improvement project is to increase the quality improvement environment at Stearns County in the Human Services Division. In addition, the goal is to increase the response rate of staff members in the Human Services Division in regards to concerns and decision making, which then increases their involvement in the quality improvement process for the agency. The hope is to see improvement in the quality improvement maturity of the Public Health Sector, as well as increasing the utilization of the bright idea cards or surveys resulting in a measurable improvement and change throughout the agency.

**PART B: Analysis**

The survey regarding the quality improvement environment is based around a 5 point Likert Scale ranging from “strongly agree” to “strongly disagree”. The quality improvement
environment tool has been used since 2012, in which the quality maturity of the staff was found to be around 3.1, or neutral. Although fluctuating slightly among the various questions, the quality maturity score among staff seems to increase slightly each year, however still staying within the neutral response among each of the years. The goal would be to get the quality improvement maturity score among the “agreed” or “strongly agreed” range meaning that the quality improvement environment is readily used and the environment is engaging.

The problem lies within lack of staff involvement in the human services public health division in regards to concerns and solution implementation. There has been a lack of staff involvement in the quality improvement process, resulting in a lack of change in the agency. Due to the nature of the agency and working out in the community, staff, in addition to management and supervisors, are essential aspects of the quality improvement process. The US Department of Health and Human Services states that in order to see improvement in the organization's delivery of care, it is essential to focus on “being part of the team,” or part of the QI environment. Quality improvement only works if it includes a team process, as various skills, experience and perspective are essential in creating lasting changes (“Quality Improvement”, 2011, p.3). The main goal is to find a tool that engages staff in the quality improvement process and allows them to continuously voice their concerns and be involved in decision making. An article called “Successfully Getting Input From Frontline Staff” states that the key is to routinely ask for input, rather than solely seeking feedback when there is a concern. This results in a proactive culture that may even prevent future concerns from occurring (“Successfully getting input..”, 2013, p. 1). The focus on quality improvement is supported by the Healthy People 2020 goal in article PHI-16 in which it aims at increasing “the proportion of Tribal, State, and local public health agencies that have implemented an agency-wide quality improvement process” (“Healthy People
2020”, 2020, p. 1). Through these goals, it is evident that quality improvement is a crucial part of public health agencies all over. According to the US Department of Health and Human Services, quality improvement consists of continuous and systematic actions that over time, lead to measurable improvement in health outcomes and healthcare services to a given targeted population (“Quality Improvement”, 2011, p.1).

However unsuccessful, the previous year implemented bright idea cards that follow the PDSA model in hopes of offering a tool that would allow staff to voice their concerns, in addition to being involved in the quality improvement process by offering potential ideas and solutions, while acting on their ideas and evaluating the results. Bright idea cards were ineffective in the sense that only a handful of the physical paper copies were filled out, and staff who filled them out stated that there was no follow up from management and supervisors regarding their ideas and concerns. On top of that, staff stated that they either didn’t know about the bright idea cards, or didn’t know where they were located. The root of the problem lies within the inaccessibility and lack of knowledge of the cards, in addition to the lack of assistance from management and supervisors with the implementation of change. According to the article “Creating Quality Improvement Culture in Public Health Agencies,” barriers such as lack of relevance, time and resources are always present. Additionally, a strong barrier exists when there is a lack of leadership and teamwork within an organization (Davis et al., 2014, p. 98). Although leadership needs to control the efforts in promoting change, they too need to take a step back and allow for frontline staff to take responsibility for change, while providing them with the necessary resources to foster growth.

The goal this time around is to develop a tool that staff will feel is more accessible for them and will increase the utilization of feedback surveys, in addition to ensuring follow up
regarding concerns and ideas that are brought up by staff. Davis et al. states that it is essential to
move from sporadic movements to creating a quality improvement culture that sustains the
improvement performance. In addition, there must be development of a strong leadership role as
it would allow for a breakthrough of the barriers limiting quality improvement in the public
health agency. Quality improvement is essential in the public health sector as most of the
resources pivot around evidence based practice, which is why practices need to be continually
evolving and up to standards. Evidence based interventions are at the root of creating a better
patient population based outcomes (Davis et al., 2014, p. 98-100). In order to continue with
improving the resources and care provided to the community, feedback and change need to be
continually occurring. The culture found within the agency can correlate to the outcomes of their
patients, making it essential to have an optimistic environment that is consistently taking steps
towards improvement (Hahtela et al., 2017, p. 42).

Literature shows that agencies with quality improvement culture tend to have strong
organizational culture, in addition to low staff turnover rates. If the quality improvement culture
is positive within an agency, a larger percentage of staff will be trained in the quality
improvement practices, essentially increasing the utilization of the practices. Davis et al. states,
“Quality improvement becomes part of the agency culture through a process of repetition,
saturation, and spread” (Davis et al., 2014, p. 103). Therefore, a quality improvement
environment needs to be positive and consistent in order for it to be sustainable. Sustainability,
especially in the public health sector, allows for maximization of the community resources, in
addition to staff being more effective in their role. According to the article “Quality
Improvement Interventions in Public Health Systems: A Systematic Review,” quality
improvement programs improve the efficiency and efficacy of public health programs, services
and organizations. Quality improvement can result in eliminating inefficiency, errors, and redundancy, thus improving the agency's systems functioning overall (Dilley, Bekemeier, & Harris, 2012, p. 63).

In contrast to the ineffective paper bright idea cards implemented in the past, the literature states that web-pushed surveys are more effective in obtaining responses to in depth surveys. According to an article by McMaster, LeardMann, Speigle, & Dillman, 2017, web surveys receive greater compliance than paper based questionnaires. In correlation with the nature of Public Health and being out in the community, employees are used to communicating through their emails and virtual schedules via their company phones. Thus, familiarities with web based technologies would further support the increased compliance with an electronic survey format. The authors also state how web based surveys allow the producer to be aware of the length that the survey is perceived to be at first glance by the individual, whereas paper surveys may be intimidating to individuals based on the number of questions seen immediately, thus reducing response rate. The increased importance of internet usage among agencies corresponds with the advantageous use of electronic based surveys (McMaster et al., 2017, p.1).

In addition to the ideation of electronic surveys, the article “Successfully Getting Input From Frontline Staff” states that it's important to ask anchoring questions in the surveys to get feedback. These questions help give staff an answer that sheds light on more aspects of the problems including how often it occurs, the severity of it, and whether it is seen as a problem or not. By providing anchor questions, staff will be more likely to provide concrete answers with more useful information (“Successfully getting input...”, 2013, p. 1). The increased accessibility to the surveys and the anchoring questions would set the agency up for optimistic feedback results from their employees.
PART C: Development

Once the quality improvement environment and quality maturity were identified as an area for improvement within the agency, a goal of creating a more open, opportunistic environment and an increase in the maturity score was identified, possible plans for implementation to improve these concerns were created. The first plan was to utilize the same idea as the previous year, bright idea cards. However unsuccessful last year, it became evident through a survey that many of the staff were unaware of these cards, or didn’t know where they were kept. We developed a plan for a strategic placement of these cards in an area in which there was high traffic, such as the small hallway all staff must go through to get to their offices, in addition to educating the staff further about the use of these cards at their monthly meeting and how they can be beneficial. Furthermore, we would discuss with the supervisors the essential follow up with these bright idea cards that are needed once one is filled out. The follow up would show that the staff are being acknowledged and listened to by supervisors and managers. We decided against this idea due to the highly unsuccessful attempt at it last year, and the lack of motivation the staff seemed to have in seeking out these cards to express their concerns and ideas.

The second plan was to develop a survey that is more accessible to the staff, such as a survey that is sent out to staff through their email. This way, staff have easy access to the tool to provide feedback and new ideas. In this particular survey, there would be opportunity for the staff to provide open ended responses to express their concerns and new ideas, in addition to questions in which they can pick from a set of answers for things such as the category their concern or idea is in, and more. This way, it is more readily available to the staff when
something comes up, and they don’t feel as though it is so open ended. On top of this, we would meet with the supervisors and managers to ensure that follow up is occurring regarding feedback they receive from the surveys at least once a month at their public health sector meetings, if not more. The concrete feedback would ensure that the staff are receiving follow-up regarding their concern/idea, and would allow others to know what is going on in the agency also.

The solution being chosen is to utilize an electronic bright idea card feedback survey that will be sent out monthly to employees in the human services division of public health. This decision was chosen due to various reasons. A survey conducted on the employees in this division showed that over half stated they were more likely to provide their feedback and potential new ideas if presented in a less open ended manner, and it was given to them in an electronic format. The ease of an electronic survey that would be sent out monthly by the office assistant, yet available at all times, makes this solution the best option to improve the accessibility to a resource for employees to voice their concerns and ideas, and thus improve the quality improvement environment. The survey comes at no cost, has a high chance of success if utilized successfully and would allow for the employees to feel as though they are being listened to due to the nature of it not being anonymous.

Another literature review called “Web-Based Versus Traditional Paper Questionnaires: A Mixed-Mode Survey With a Nordic Perspective” states that web based surveys can be more beneficial for various reasons. To start, web based surveys are more cost effective, and can yield similar, if not better results that paper surveys. Paper surveys can be double the cost of what it would be to perform the same survey electronically. On top of that, the increasing usage of the internet makes web based modes of feedback more attractive to individuals. Web based technology is increasingly more reliable and has simpler logistics to the process of performing
surveys. The increasing dependability on the internet, plus the increasing remoteness of work, would allow for web surveys to be more accessible to individuals, and thus have an increased likelihood of response (Hohwü et al., 2013, p. 173).

In order to implement the survey with hopes that it will improve the quality improvement involvement of staff members, and thus improve the quality improvement environment and maturity score, we will partner with the supervisors at Stearns County, in addition to the office assistant and all the employees themselves. It will be essential to partner with the supervisors so that they are all on the same page in promoting quality improvement involvement, in addition to providing acknowledgement and feedback to their employees who provide potential concerns and ideas for improvement. We will also partner with the office assistant, and provide her with details on when the survey should be sent out, and when it should be looked at. The office assistant would be in charge of sending out the survey each month, and assessing for responses that were provided. Finally, we would also partner with all the other employees. It is essential for each and every one of the employees to be aware of what is going on, and the access they will have to a resource in which they can provide feedback and potential solutions. By ensuring that all employees are aware of the new tool, there will be hope that it will be utilized more, thus improving the engagement of all employees, rather than just supervisors, in the quality improvement of the agency.

The bright idea card survey would be sent out to all employees within the Human Services Public Health Division on the first Monday of every month through surveymonkey. From there, the individuals will have access to the non-expiring link in which they can refer back to at any point in time to fill out if they have any concerns or any new ideas. The re-sending of the link every month will ensure that it is kept on the forefront of the employees mind, and that
they will have constant access to it for when an opportunity arises. On top of that, the ideas or concerns that are submitted during that particular month will be discussed at the monthly division meeting. That way, all employees within the division are aware of the concerns or new ideas that their colleagues have brought up, and feel as though they are being followed-up with and listened to.

The evaluation of this quality improvement project will be done by reviewing the number of responses received from employees regarding concerns and potential ideas for solutions. The goal of this project is to engage all employees in the quality improvement project, rather than solely putting the role on the supervisors and managers. It is essential that all employees feel as though they are being listened to, and that they are encouraged to voice their concerns and new ideas to make the agency function at its highest level possible. Additionally, this project will be evaluated in the next quality improvement maturity survey that is sent out to employees. There is hope that employees will move more towards the “agree” and “strongly agree” responses when asked if they feel that they are listened to in their agency, and if the quality improvement environment is positive.

The objectives of this solution are to define the importance of quality improvement in the public health setting. In addition to that, we hope to create a focus area that can be addressed in quality improvement. Finally, we hope to have developed a tool, the electronic bright idea feedback survey, that employees can use to implement the quality improvement process using the FADE model.

PART D: Evaluation
The intent of this quality improvement project for Stearns County Public Health would be to ensure the commitment of the human services division in engaging in the use of electronic surveys to participate in the quality improvement process of their agency. The problem with the lack of engagement and low quality improvement environment was acknowledged by supervisors during initial meetings to discuss the need for the project, in addition to the staff as they filled out the quality improvement maturity survey.

It seemed as though both supervisors and other staff were supportive of these efforts to improve the quality improvement conditions within the agency. Both parties stated that they wanted to see change within the agency, and wanted to feel as though they were being heard. On the contrary, the staff may be against the implementation of the quality improvement project. The biggest problem is the lack of motivation that is being seen in participating in quality improvement projects. Staff may be against the project due to the perceived “extra work” it will entail for them. One way in the future that can keep staff motivated would be by offering incentives for those who participate.

The plan for implementation differed from our original plan as our project was unable to be implemented due to COVID19 concerns and Stearns County Public Health being on the frontline of facing this rising concern. The perceived plan was to implement a survey once a month to the employees in the human services division that would allow for them to express their concerns and ideas for change through usage of the FADE model in an electronic survey format. The electronic survey would be available at any point in time, but would be sent out monthly to ensure it is at the forefront of all employee’s minds if they happen to come across a concern or a new idea.
The future of this project would provide optimism in producing a more positive, and open quality improvement environment within the agency. The electronic survey would be easily accessible and provide endless opportunities for ideas for improvement. On top of that, the scheduled feedback at monthly meetings would assure that the employees are being heard and steps are being taken. By providing open communication and engagement within the QI process, there would be an increase in the agency's quality improvement maturity score as the employees would perceive a more encouraging, prosperous environment.

**Survey Results**

**QI Average Maturity Score for 2020 Staff**

![QI Maturity Score 2020 Staff](image)

**QI Average Maturity Score Comparison of 2017 to 2020**
### Percent Change in Maturity Score Among Questions from 2017-2020

<table>
<thead>
<tr>
<th>Question</th>
<th>2017 to 2020 Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>-0.04%</td>
</tr>
<tr>
<td>Q2</td>
<td>0.03%</td>
</tr>
<tr>
<td>Q3</td>
<td>-0.04%</td>
</tr>
<tr>
<td>Q4</td>
<td>-0.15%</td>
</tr>
<tr>
<td>Q5</td>
<td>0.06%</td>
</tr>
<tr>
<td>Q6</td>
<td>0.03%</td>
</tr>
<tr>
<td>Q7</td>
<td>-0.02%</td>
</tr>
</tbody>
</table>
### Questions With the Greatest Change Regarding QI Environment From 2017-2020

<table>
<thead>
<tr>
<th>Question</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8</td>
<td>-0.03%</td>
</tr>
<tr>
<td>Q9</td>
<td>0.03%</td>
</tr>
<tr>
<td>Q10</td>
<td>-0.03%</td>
</tr>
</tbody>
</table>

**Q1-staff members are routinely asked to contribute to decisions in my public health agency**

**Q3-The key decision makers in my agency believe quality improvement is very important**
Possible Questions for Electronic Survey:

a. What topic does your concern or idea relate to?
   i. (Drop down menu: improve client experiences, maximize resources, improve health outcomes, utilize staff to be most effective)

b. What is the focus of your idea or concern?
   i. (Ex: lack of resources, client not home, exposure to danger, trouble engaging, overscheduled families, etc.)

c. What do you see is the biggest concern or barrier that stands in the way? What have you learned from this concern?

d. What is a potential solution or idea that could be implemented to fix this concern? What would you like the outcome to be?

e. How did the solution work with that particular situation? What can you do to sustain the results and communicate the change in process?
Limitations

Although data was able to be collected through the quality maturity score from the 2020 year, it was unable to be compared to the most recent years of 2018 and 2019 due to the information being unable to be found. Due to unforeseen circumstances of COVID19, the quality maturity project electronic survey was unable to be implemented due to higher priority concerns among the public health agency. Therefore, there was a lack of feedback regarding how beneficial the changes of implementing an electronic feedback system were compared to the previous years paper bright idea cards. The altered circumstances will limit the ability to see any growth or change within the agency's quality improvement maturity score in the following year. Finally, this study was pinpointed to the public health agency within the Stearns County area and does not look at any other public agencies in regards to their quality improvement environment and their ability to engage staff members in the process. Since this is a known concern that the agency identified and wanted to be re-looked at and acted upon, the study was not randomized.

Conclusion

Employee engagement in quality improvement proves to be essential in the workplace; nonetheless, many agencies such as Stearns County Public Health have struggled to engage staff of all levels in the quality improvement process. The lack of feedback, exchange of ideas, and overall engagement in the quality improvement process has proven to be detrimental to the development of change in the organization and fails to align with the Stearns County Public Health Division Quality Improvement Plan. As stated previously, literature has suggested that quality improvement engagement is of critical importance for the workplace; participation in quality improvement results in an improved workplace culture, lower staff turnover and shared
missions and goals. Due to the lack of engagement in the quality improvement process by frontline staff, Stearns County requested the development of a new and improved quality improvement tool. After examining quality improvement maturity survey results, an electronic survey tool was created to promote and facilitate higher engagement from the frontline staff. This web-based survey, supported by literature to be more accessible and effective, utilized the FADE model to provide employees with a platform to provide feedback and exchange ideas monthly, with the intention to contribute to quality improvement at Stearns County.

Due to COVID 19, the survey was not yet implemented, and therefore data regarding its effectiveness was not collected. In conclusion, the intention is for Stearns County Public Health to implement the electronic survey when it is appropriate, post COVID 19. Although the project was not implemented due to circumstances surrounding COVID19, literature suggests that the implementation of a web-based survey would result in greater engagement from frontline staff. Optimistically, due to the commitment from both parties, supervisors and frontline staff, this electronic survey will result in greater quality improvement participation and engagement from staff of all levels, improving the workplace at Stearns County Public Health.
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