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# Measuring and developing Communities of Practice in a blood analysis unit

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## **Introduction:**

Knowledge sharing is essential to develop operational efficiency and quality. However, knowledge sharing is difficult to achieve due to 24-7 shifts, patient contact and little time for meetings. The theory of communities of practice (CoP) proposes an alternate approach to knowledge sharing. A CoP is a social community formed around a practice (e.g. ICU nursing) which induce a propensity to share experiences and thereby constitute knowledge sharing. CoP was conceived as a descriptive construct but has gained popularity and is found to improve practice performance, but knowledge about developing and measuring CoP is lacking. We propose a method to measure and develop CoP and the method is tested in a blood analysis unit at 'Nordsjællands Hospital' in Denmark.

## **Material and method:**

The practice was operationalized narrowly as employees performing a specific maintenance task. A questionnaire was developed based on a CoP literature review. Using the 'think aloud' method the questionnaire was tested with practitioners investigating if questions were decoded correctly and triggered the desired mental image.

CoP level was measured at baseline and at follow-up (seven weeks after the intervention). Interventions were initiated just after baseline measurement.

The following CoP developing interventions took place: The practice was chosen due to a high frequency and recurring problems. A voluntary CoP facilitator was identified. She then invited her colleagues to participate in the CoP and arranged CoP meetings.

The 'Event Effect Method' was used to control for effect modifiers by identifying events both part and not part of the intervention and estimating their effect on CoP.

## **Result:**

Results will be available for the conference. A response rate of 50-60% is expected.

We expect increased CoP activity in the form of increased levels of reported knowledge sharing and common problem solving and increased amount of improvement suggestions.

## **Conclusion:**

We hope to conclude that the questionnaire identified statistically significant changes ( $p < 0,05$ ).

We expect few effect modifiers were identified and assessed as having no impact on the measured CoP.

We expect the change in CoP level to correspond with intervention associated events and interventions are concluded to have produced the desired effect, and that the questionnaire measures this change.