Improving Patient handover was always modified to HES Efficiency items. Fit indices 0.03 measurement

Results
Using confirmatory factor analysis (CFA), not all items at the scale measurement level were found to contribute significantly to their respective latent constructs. Standardised path loadings varied from 0.03–0.83 for the six Quality of information items, 0.67 to 0.86 for the five Interaction and support items and 0.00–1.47 for the three Efficiency items. Fit indices and the overall internal consistency of the HES were considered inadequate for the sample. Hence, modifications to the questionnaire structure were made by using modification indices of the latent variable model. The factor Quality of information was modified by removing the item “I feel that important information is not always given to me” and by adding the item “Patient information is provided in a timely fashion”. The factor Interaction and support was kept in its original form. The factor Efficiency was deleted from the questionnaire and replaced by the Factor Relevance of information, and was composed the items “I feel that important information is not always given to me” and “I am often given information during handover that is not relevant to patient care”. The item “I find handover takes too much time” was not used, as it did not contribute significantly to any of the latent constructs.

At baseline, factor scoring for Quality of information by ICU and ward nurses had a wide range (from 30.56 to 88.89) with a mean score of 64.99 ± 10.82. Scoring by emergency nurses was on average slightly higher (M=75.85, SD=9.03) with a narrower range (range=55.56 to 88.89). Pre-intervention factor scoring for Interaction and support was perceived higher by ward and ICU nurses compared to emergency nurses (M=78.11, SD=15.34 vs. M=66.67, SD=18.86). Last, pre-intervention factor scoring for Relevance of information was comparable between respondents from ward and ICU and emergency nurses (M=47.64, SD=12.27 vs. M=44.23, SD=10.96).

Concerning the perception of ward and ICU nurses, no significant difference in factor scoring for Quality of information (64.99±10.82 vs. 61.4±13.75; U=1119.5, P=.13), Interaction and support (78.11±15.34 vs. 74.98±16.27; U=1200, P=.32), or Relevance of information (47.64±12.27 vs. 45.42±13.26; U=1166.5, P=.22) following the intervention was found in this study.

Emergency department nurses on the other hand, perceived Interaction and support to be improved following the intervention (66.67±18.86 vs. 82.56±12.78; U=125, P=.04). There was however no significant difference in emergency nurses scoring for Quality of information (75.85±9.03 vs. 77.78±6.71; U=93.5, P=.66) or Relevance of information (44.23±10.96 vs. 44.87±14.65; U=82.5, P=.93) in this study.

Methods
Second order confirmatory factor analysis was performed. Analysis of differences in HES factor scoring before and after the intervention was performed using the Mann-Whitney U test. The significance level a was set at 0.05, and all P-values were two-sided.

Nurse participants were recruited from four acute hospital wards, the ICU, and the emergency department. Data was collected during two measurement periods: before the intervention and two months after the intervention.

We designed an intervention tailored to the needs of the participating emergency department. An appreciative inquiry (AI) inspired intervention was designed to improve the implementation of an existing handover form and procedure.

Conclusion
The results of this study show that the use of an AI intervention did not result in a noticeable improvement in the perceived quality of intrahospital nursing handover by ward or ICU nurses. There was however an improvement in the perception of Interaction and support among emergency department nurses. We conclude that the applied intervention had a positive effect on teamwork and mutual understanding concerning nursing handover. In order to improve nursing handover hospital-wide interventions aimed at creating a generative story, improving mutual understanding, and establishing a supporting attitude regarding standardised procedures to reduce human error are suggested.