Education of health care workers in patient safety is believed to be an important step towards the improvement of patient safety. Key patient safety educational topics are, for example, learning from errors by reporting and analyzing incidents, human factors engineering, and information transfer between health care workers and towards patients. Medical residents are key figures in delivering health care and an important target group for patient safety education. For this thesis six studies were conducted that primarily focused on the development and the effects of patient safety education for residents. Moreover, the studies provided insight into factors influencing residents’ behavior to improve patient safety.