



Figure 2 Meta-analysis assessing the impact of health education on medication adherence among individuals with hypertension (Adopted from Mustafa et al., 2025)

Image caption: (A) The pooled effects size of health education on adherence to medication (continuous data); (B) The pooled effects size of health education on non-adherence to medication (continuous data); (C) The pooled effects size of health education on adherence to medication (dichotomous data) (Adopted from Mustafa et al., 2025)

4.2 The key role of drug education in risk management

Patient medication health education plays a crucial role in ensuring the safety of clinical medication use. Without scientific and effective guidance, the goal of medication safety cannot be truly achieved. By guiding patients to identify, prevent, and properly handle various risks related to medication use (such as adverse drug reactions), their awareness of potential safety hazards can be enhanced, and they will actively report any issues that arise during medication use, thereby avoiding further damage to their health (Wasiullah et al., 2025). Systematic research targeting elderly patients has shown that a comprehensive intervention program covering medication education, prescription review, and efficacy monitoring can reduce the overall incidence of adverse drug reactions by approximately 19% and the incidence of severe adverse reactions by about 32%. This result fully confirms that scientifically planned medication health education occupies an irreplaceable core position in medication risk management.

In the design of specific educational content, medication risk communication needs to be comprehensive, detailed, and easy to understand. The content should include the expected therapeutic effects of the drugs, possible adverse reactions, types of high-risk drugs, as well as various risk factors such as age, underlying diseases, and combined medication (Wasiullah et al., 2025). Nursing staff should integrate medication risk communication into their daily medication guidance work, clearly explaining the indications for discontinuation of medication, situations requiring timely consultation with physicians, methods for avoiding repeated medication, proper medication sequence, and possible interactions between drugs and food, and over-the-counter drugs. In addition, conducting specialized training on medication safety for nursing staff has significant practical significance. Such training can expand their professional knowledge reserves, strengthen their sense of professional responsibility, and enhance their practical ability in safe medication operation. This measure not only reduces the occurrence of medication errors at the source but also enables nursing staff to provide more professional guidance to patients in preventing medication risks (Tajuddin et al., 2025).

4.3 Core goals and realization paths of patient participation in medication management

The core direction of medication education is to encourage patients to shift from a passive role of accepting