



Reducing the Fear in Hospitalized Preschool-Aged Children by Using “Openable Innovative Intravenous Injection Splints”

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INTRODUCTION

Facing unfamiliar medical environments and invasive intravenous treatment, preschool-aged children with respiratory tract infections fear and resist said treatment, resulting in them pulling related medical tubes and intravenous catheter coming off. A relevant survey on preschool-aged children showed that 97.2% of them feared invasive intravenous injections, and that the completion rate of invasive intravenous injection-related health education (offered by nurses) was merely 58%. A subsequent analysis showed that the main reasons contributing to such a low completion rate were children fearing the intravenous injection process; medical tubes being exposed after insertions; children pulling medical tubes out of fear; intravenous injection splints being the same rather than being customized; nurses failing to fully provide intravenous injection-related health education prior to performing injections; and nurses failing to use therapeutic games to reduce children's anxiety and fear.

AIM

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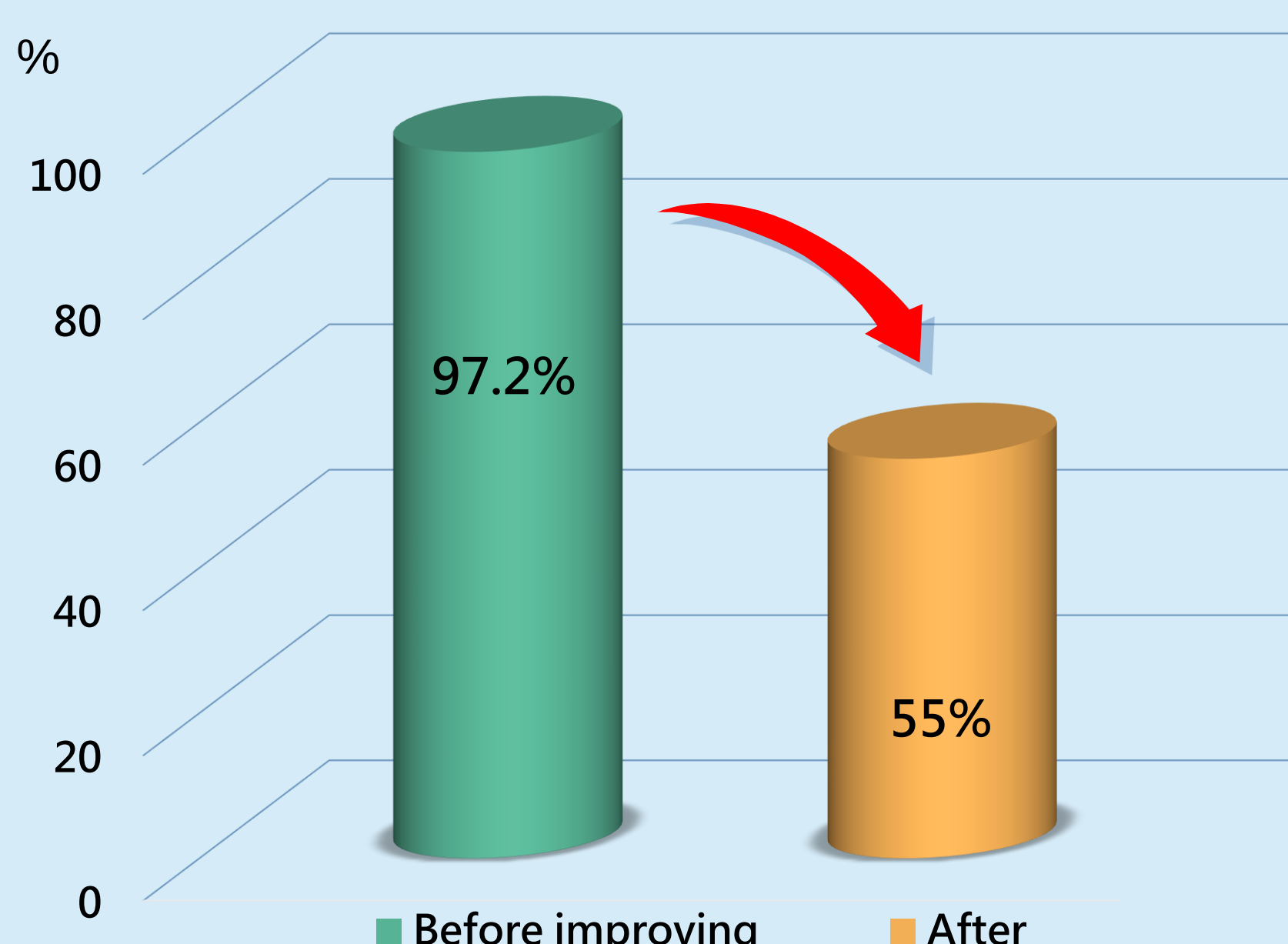
METHOD

- To reduce preschool-aged children's fear of intravenous injections and ensure that nurses follow the standard procedure for providing invasive intravenous injection-related health education prior to performing injections :
- This study built a therapeutic gaming tool (i.e., an innovative intravenous injection splint that could be opened; hereafter referred to as “openable innovative intravenous injection splint”) in place of traditional intravenous injection splints.
 - Redecorated the walls of a pediatric ward walls with cartoon stickers to imbue the area with a warm ambiance. These endeavors turned the children's attention away from the treatment and reduced their fear.
 - The hospital unit offered a therapeutic game-like interactive teaching course and formulated a standard procedure for intravenous injection-related health education for preschool-aged children to enhance nurses' skills to teach such a course.

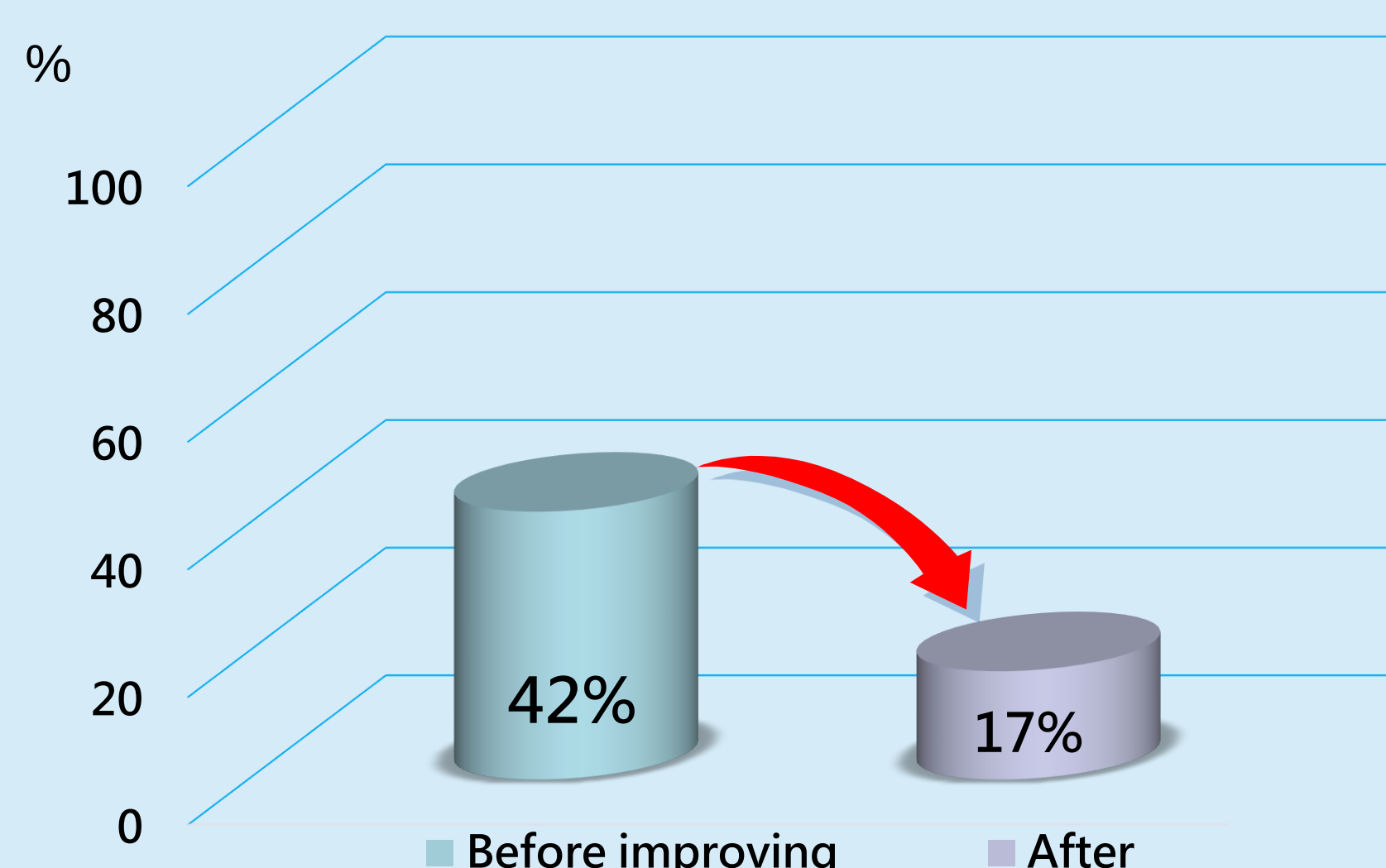
RESULTS

This study assessed the intervention results using the data of 10 pediatric nurses and 30 hospitalized preschool aged-children receiving intravenous injections. The results showed that by employing the openable innovative intravenous injection splints, imbuing the hospital with a warm ambiance (by redecorating the walls with cartoon stickers), establishing a pediatrics-friendly medical team, and introducing therapeutic games, the preschool aged-children's fear of invasive intravenous injections decreased from 97.2% to 55%; the likelihood of them pulling medical tubes out of fear (resulting in the need to reinsert intravenous catheter) decreased from 42% (25/60) to 17%(11/65); and the nurses' completion rate of invasive intravenous injection-related health education increased from 58% to 92%.

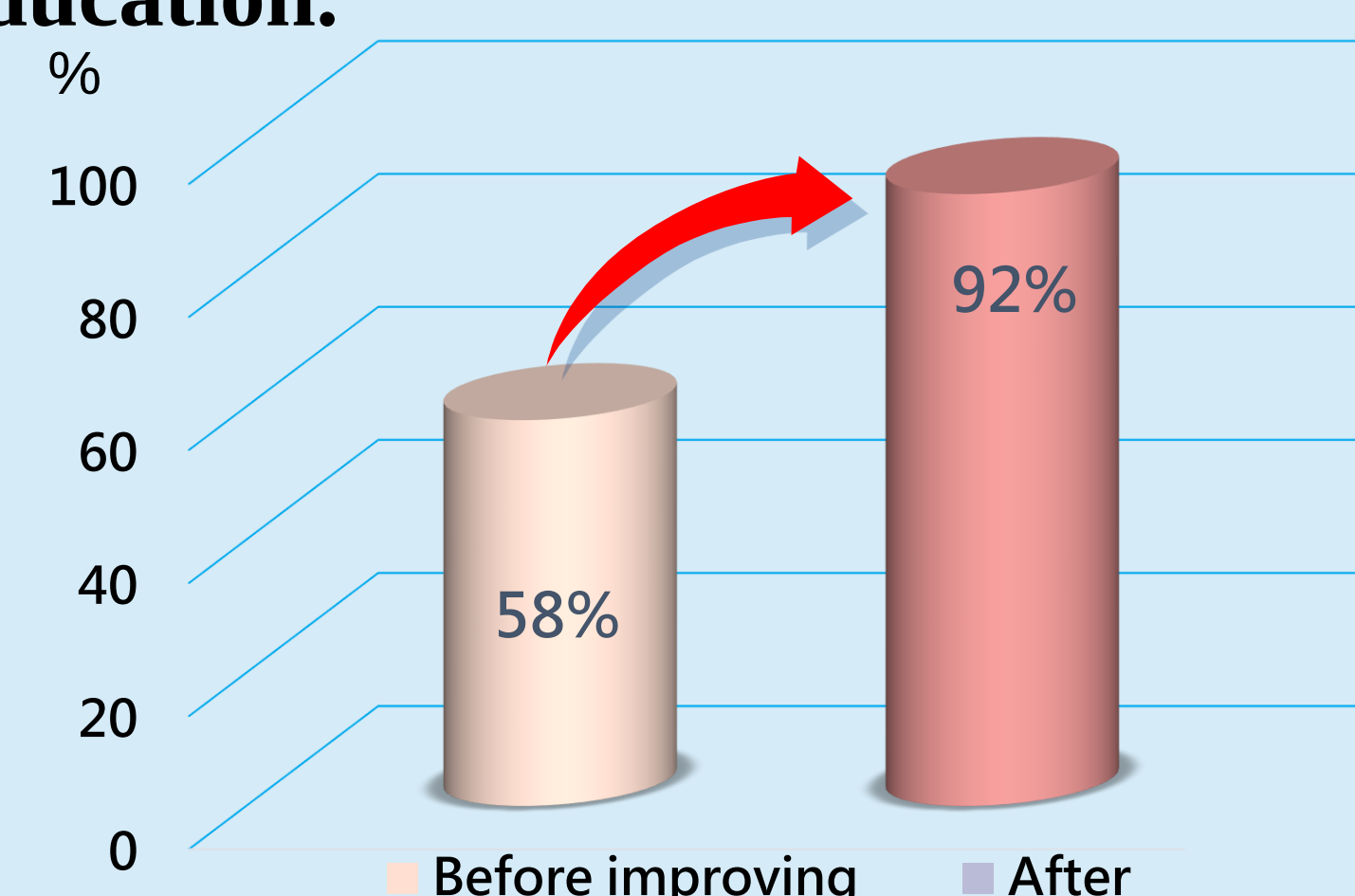
■ Preschool aged-children's fear of invasive intravenous injections decreased.



■ Likelihood of them pulling medical tubes out of fear (resulting in the need to reinsert intravenous catheter) .



■ The nurses' completion rate of invasive intravenous injection-related health education.



CONCLUSIONS

By employing the openable innovative intravenous injection splints to turn the children's attention away from the treatment; imbuing the hospital with a warm ambiance (by redecorating the walls with cartoon stickers); and incorporating an integrated therapeutic game-like interactive teaching course, the nurses' completion rate of invasive intravenous injection-related health education was elevated, nurse-patient trust was heightened, and preschool-aged children's fear of intravenous injections was reduced, thereby improving nursing care quality.

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