



# The development and implementation of a patient decision aid for renal replacement therapy in Taiwan

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## Intro

Chronic kidney disease (CKD) has a high incidence and prevalence rate in Taiwan. When it progresses to advanced CKD, patients must decide whether to receive renal replacement therapies (RRTs). The objective of this study was to design a Taiwan-based patient decision aid (PDA) to help patients understand each treatment option and make optimal decisions that suit them personally. The target group of this PDA is people with CKD and an estimated glomeruli filtration rate (eGFR) < 15 mL/min/1.732. For CKD, treatment options include kidney transplant, hemodialysis, and peritoneal dialysis.

## Methods

We introduced this PDA to the hospital to assess how a PDA helped patients and benefited the doctor-patient relationship. The PDA was developed by a team composed of nephrology clinicians and health educators, and also reviewed by evidence-based medicine experts. Afterwards, clinical staff and patients were invited to participate in a two-stage test; the first phase of the test determined the professionalism and readability of the content of the PDA, and the second phase analyzed its effectiveness. A campaign for shared decision making was initiated that invited hospitals to introduce this PDA, and an effectiveness evaluation questionnaire was administered at the follow-up to collect feedback from participants.

## Results

A total of 33 hospitals participated in this study, and valid questionnaires from 294 clinical staff members and 503 patients were recovered. Regarding clinical staff, approximately 98% of respondents considered the use of such tools to be helpful for their patients, and 98.8% thought that the use of a PDA could promote communication and an improved doctor-patient relationship (some helpful, much helpful, or extremely helpful answers). On average, 96.9% of patients considered this PDA to be helpful in decision making. Of the patients, 34.6% (174) changed their decision process after using the proposed PDA, with 3.2% (16) changing to "not sure yet"; the proportion that were unable to make a decision dropped from 42.3% to 22.5%. Among the patients, 92.8% thought that the use of this PDA could help them make the most suitable treatment choice.

## Conclusion

According to the questionnaire feedback, more than 90% of respondents thought that the use of this PDA can help patients make decisions and improve doctor-patient relationships. The overall decline in patient anxiety indicated that the use of this PDA is helpful for patient decision making related to undergoing RRTs. In summary, although using this PDA for RRTs helps patients and improves doctor-patient relationships, one crucial consideration is that patients require sufficient time to consider their treatment options. Emotional support and confidence may enable patients to choose the most suitable treatment option themselves.

## Acknowledgement

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## References

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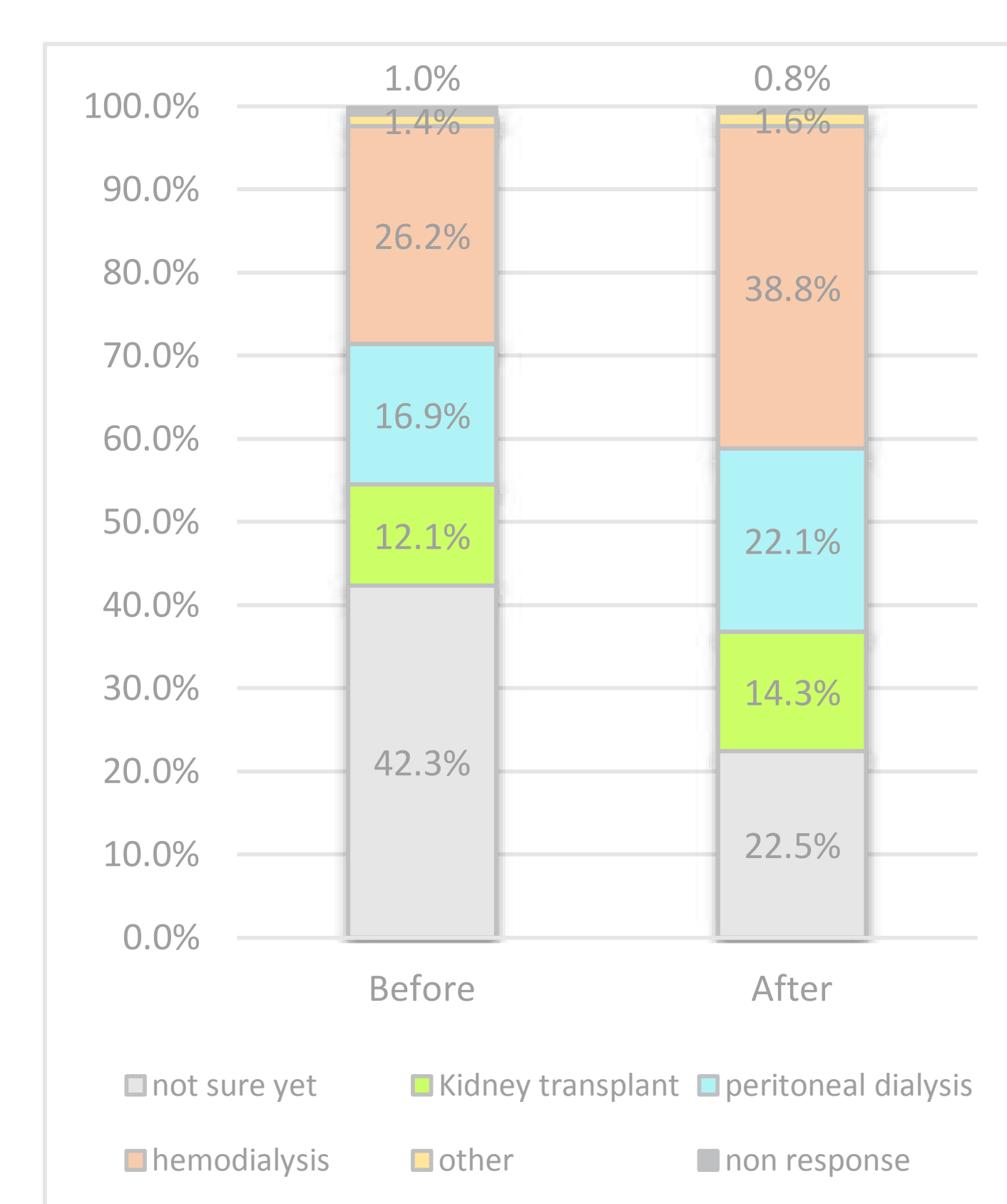


Figure 1. The change of decision before and after patients using PDA (n=174). Depending on the hospital and patient situation, there may be several days or weeks between the two decisions.

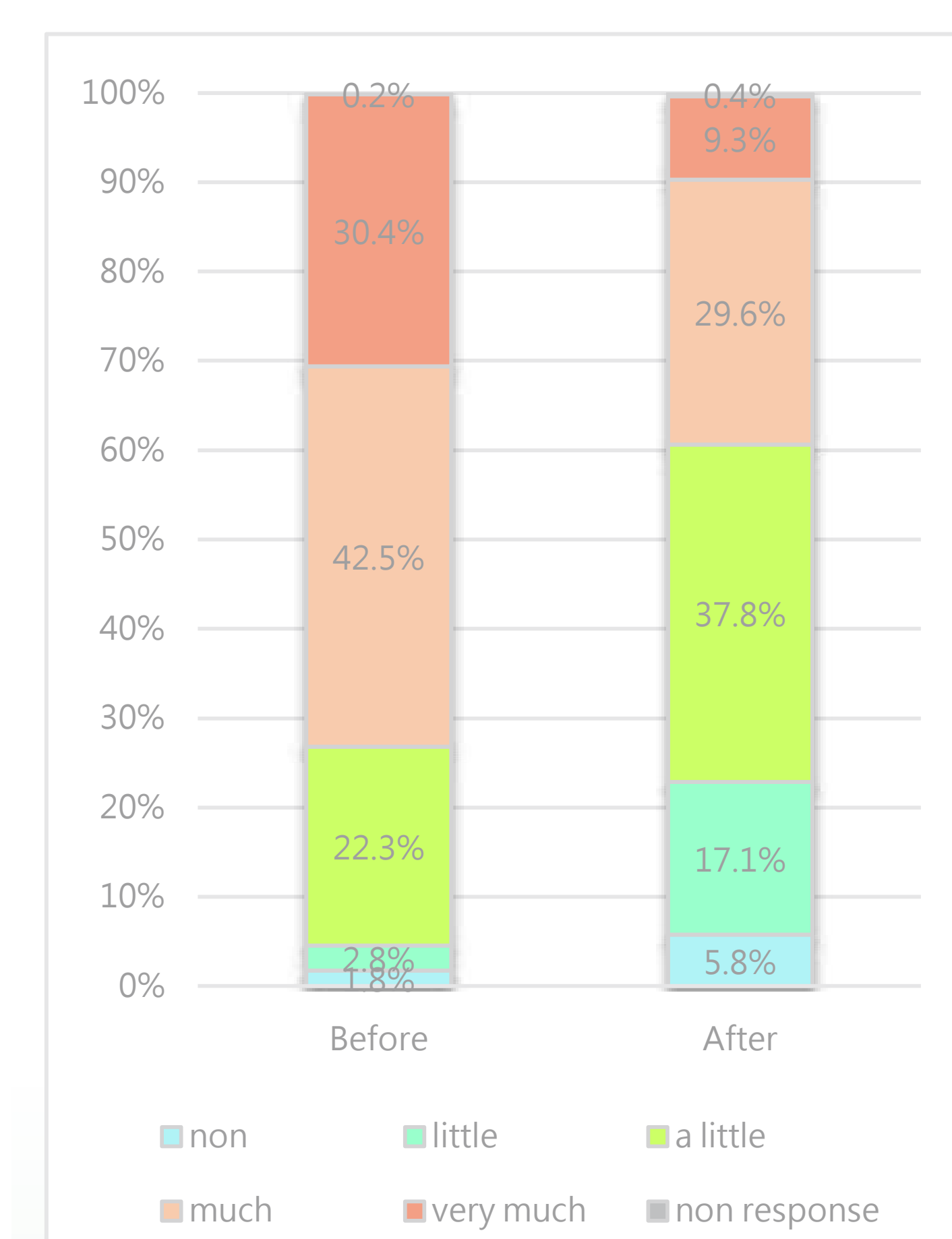


Figure 2. The degree of anxiety before and after the patient using PDA was significantly different. (Wilcoxon Rank Signed test, n=501, mean=2.97(before), 2.20(after), p<0.001\*\*\*)