

Evaluating the impact of an educational video on the knowledge of South African patients undergoing renal dialysis regarding the use of their health data

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Abstract

Introduction: The South African Renal Registry (SARR) collects, analyses and publishes data on patients receiving kidney replacement therapy in South Africa annually. Recently, the ethical processes governing the way researchers handle large-volume data such as those collected by the SARR have received increasing interest. Accordingly, there is a growing emphasis on data protection and transparency in communicating to patients how researchers use their data. In this study, we aimed to evaluate the impact of an educational video on the knowledge of patients receiving dialysis in South Africa regarding the use of their health data.

Methods: This was an uncontrolled, quasi-experimental study with a pre-post-test design. The study population included patients receiving chronic haemodialysis at Tygerberg Hospital and National Renal Care Goodwood between 14 June 2024 and 17 July 2024. We developed an educational video outlining how patients' health data are collected, analysed and shared. Interviews evaluating patients' knowledge about their health data, informational rights, and the social value of their health data were conducted prior to being shown the video, and at 1-hour and 1-week after. Data were analysed using a one-way repeated measures ANOVA, with post-hoc pairwise t-tests accounting for multiple comparisons. Mean differences, and their 95% confidence intervals, were calculated for the paired-test scores at each time point.

Findings: The study population comprised 52 patients. Results of the ANOVA indicated that the video had a statistically significant effect on the patients' knowledge ($F(2, 102) = 32.41, p = 1.27 \times 10^{-11}$). The post-hoc pairwise t-tests revealed that patients' knowledge had significantly increased 1-hour after watching the video relative to their baseline knowledge ($p = 1.10 \times 10^{-6}$), which was maintained over the subsequent week ($p = 2.14 \times 10^{-9}$).

Conclusion: The findings of this study support the use of video-based tools to improve patients' knowledge regarding the use of their health data.