

Redesigning the Incentive Spirometer through Gamification
(Technical Report)

Patient Care at Home:
Fighting Deficient Medication Adherence in the United States
(STS Research Paper)

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by

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Preface

How can patient care be improved? The many opportunities for care improvements include innovations that increase patients' adherence to prescribed medical regimens.

How can gamification improve patient adherence to the Incentive Spirometer (IS)? An IS can prevent respiratory complications, but patient adherence to the IS is poor due to its unappealing design. To improve patient compliance, the research team designed and tested a gamified IS design. Residents and providers surveyed preferred a gamified IS design that lights up when used, rating it significantly higher for engagement, creativity, user-friendliness, and likelihood of use compared to the original.

Why is medication nonadherence relatively high in the United States? Medication nonadherence can be dangerous. In the US, low adherence is due in part to healthcare's treatment as a commodity rather than a human right. Despite some efforts among medical professionals to promote healthcare as a right, pharmaceutical companies and other private-sector enterprises have succeeded in commodifying healthcare, with consequences that include a relatively low rate of patient adherence.