Feasibility of the application of multimedia animations as preoperative guides for urgent abdominal surgeries in public hospitals in Brazil

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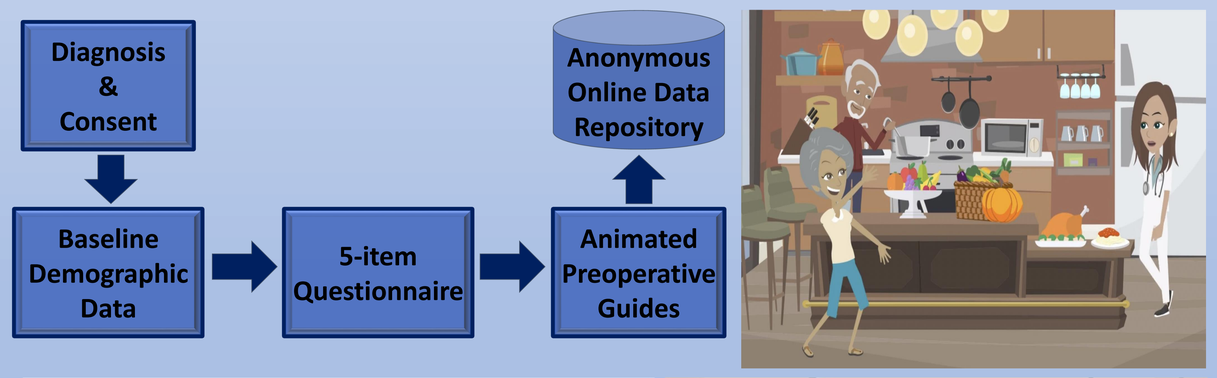
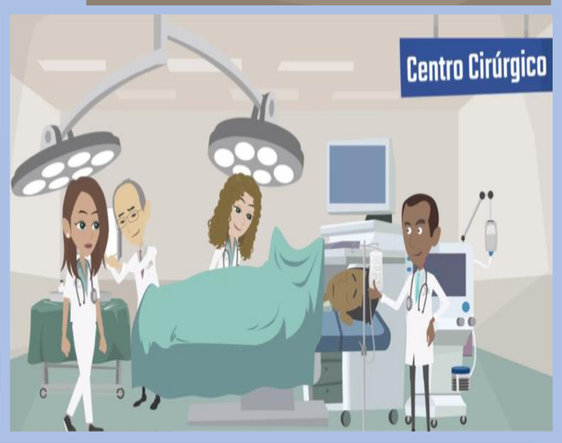
INTRODUCTION

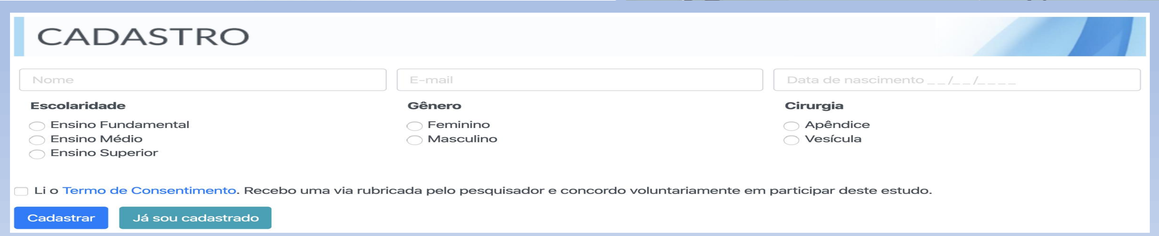
Preoperative education helps patients feel less anxious and improve self-care while decreasing hospitalization time and demand for postoperative analgesia. Health literacy, culture and language play vital roles in patients' understanding of health issues and may influence treatment outcomes. Obstacles are more evident in low and middle income countries (LMICs), where patient education levels and hospital resources are lower.

METHODS

A prospective pilot study assessing the feasibility of online preoperative multimedia animations as guides for surgical patients in an LMIC. They are in the local language with a holistic focus on surgical patient education. Patients admitted to a public hospital in Brazil for acute cholecystitis or appendicitis were included. Feasibility was represented by acceptability rate and ease of integration with department protocols. Animations were created through a partnership with Precare®.







RESULTS

Patients presented good acceptance rates regardless of demographic factors. The main issue informed by professionals was internet access. Initial results of feasibility study for the application of this tool in an LMIC is positive. Significant disadvantages were not identified.

Table 1: Demographic data between the groups of study completion (n=34)

Demographics	Completed study (n=26)	Incomplete steps (n=8)	
Age	43 ± 15.8	52.6 ± 18.5	p=0.16
Gender			
Male	9 (35%)	5 (62,5%)	p=0.23
Female	17 (65%)	3 (37,5%)	
Educational Level			
Below high school degree	8 (31%)	0 (0%)	p=0.079
High school degree	12 (46%)	3 (38%)	
Secondary education	6 (23%)	5 (63%)	
Type of surgery			
Cholecystectomy	16 (62%)	4 (50%)	p=0.69
Appendicectomy	10 (38%)	4 (50%)	

Table 2: Acceptability Rate per demographic category (n=34)

Demographics	Total number	Acceptability rate	
Gender			
Male	14	9 (64.3%)	p=0.84
Female	20	17 (85%)	
Educational Level			
Below high school degree	8	8 (100%)	p=0.8133
High school degree	15	12 (80%)	
Secondary education	11	6 (54.5%)	
Type of surgery			
Cholecystectomy	20	16 (80%)	p=0.71
Appendicectomy	14	10 (71.4%)	

CONCLUSION

The use of online multimedia animations in local language as preoperative guides in LMICs is feasible. It may help improve patient education in these contexts and promote beneficial clinical outcomes for surgical patients. This positive feasibility study opens the way for future randomized trials to assess the tool's clinical impacts.