

Consumer Co-Designed Cookbook & Guide for Managing Reflux

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Background

Laryngopharyngeal reflux (LPR) is a common condition affecting the functions of the pharynx and larynx, including voicing and swallowing [1-8]. LPR differs from the traditional symptoms of Gastro-oesophageal reflux disease (GORD) such as heartburn, indigestion, and the sensation of stomach acid rising. GORD is an acid reflux, which affects approximately 10–15% of the Australian population and occurs when acidic stomach contents flow back into the oesophagus [9]. In contrast, LPR is a lesser known but equally impactful form of non-acid reflux, where stomach contents, including pepsin (a digestive enzyme that helps break down protein), travel beyond the oesophagus into the pharynx and larynx and cause laryngopharyngeal symptoms (LPS) including cough, throat clearing, hoarseness, mucus in the throat, globus sensation, and difficulties swallowing (e.g. tablets and solid foods) [4, 10, 11]. When dormant pepsin is re-activated within the pharynx and larynx, this can lead to tissue injury and inflammation as the mucosal lining is much more sensitive than the digestive tract [10].

At least 50% of Australian patients referred to Ear Nose and Throat (ENT) services with laryngeal complaints are typically diagnosed with LPR [4] as per investigations via nasoendoscopy. Publications involving pH studies have identified reflux in 63% of patients presenting with LPR, which occurs in 50-88% of patients with hoarseness, 40-64% globus, 55% chronic cough and 35-37% dysphagia [4, 12]. LPR is recognised as a major contributor to persistent laryngeal and pharyngeal symptoms and often co-occurs with GORD [13].

Patients often have poor understanding of the distinctions between reflux subtypes [10], which can limit their ability to independently and effectively manage their own symptoms.

Role of Speech Pathology in reflux management

Reflux is a modern-day disease influenced by lifestyle-related factors, including obesity, dietary patterns, intake of refluxogenic foods and drinks, meal timing, and posture after eating [14]. ENTs regularly implement a three-pronged approach for management of reflux (e.g. Stanford protocol) – this consists of diet modifications, behavioural modifications and medication optimisation [10]. As many LPS present as voice and middle airway difficulties (i.e. dysphonia, chronic cough), patients are referred to Speech Pathologists (SP) for support of these routine conditions and to help optimise reflux symptoms [11].

Speech Pathology Australia recognises the role of the SP includes vocal health optimisation, lifestyle and reflux management [15]. Unlike ENT, there is currently no similar resource for SPs to support reflux management in an outpatient context. Within Logan Beaudesert Health Service (LBHS) specifically, the role of SP in reflux management includes assessment and management of the aerodigestive tract, involving education, diet and lifestyle modifications, recommendations for over-the-counter medications to reduce symptoms, voice therapy [15], and suggestions for ongoing management of symptoms with their General Practitioner (GP).

Differences in management of GORD versus LPR		
Reflux type	Gastro-oesophageal Reflux (GORD)	Laryngo-pharyngeal Reflux (LPR)
Treatment	Lifestyle changes (diet, weight management, avoiding triggers), medications (PPI, H2 receptor blockers), sometimes surgery.	Lifestyle changes (diet, weight management, avoiding triggers), medications (sodium alginate), and voice therapy to overcome voice-related symptoms (emphasis on reducing irritation). LPR typically takes longer to resolve than GORD.

[Excerpt from completed reflux cookbook education resource]

Rationale behind the co-designed resource

Reflux can significantly disrupt daily routines (i.e. eating, socialising and meal planning), yet standard dietary advice often fails to reflect real world lifestyles. Patients are often frustrated by generic, restrictive food lists as they may be confusing, unsustainable and inconsistently effective [16-19]. LBHS SPs specifically observed many patients’ struggles to implement practical dietary changes. Patients reported feeling overwhelmed by extensive information (i.e. long lists of trigger foods), and continued to seek clear, realistic meal guidance despite repeated education.

Patients value practical, personalised education that explains why certain foods and behaviours trigger symptoms, including the impact of preparation methods, portion sizes, timing and food combinations [18]. These challenges highlighted the need for a user friendly, consolidated resource, prompting the development of a consumer informed reflux friendly cookbook tailored to common dietary habits. Co-designed with consumers, this resource reflects real-world needs (e.g. cultural food preferences, budget constraints, limited preparation time), while supporting understanding and engagement in self-management through active patient involvement [19, 20]. Such a resource shifts reflux education from an avoidance-based approach to a focus on well-informed self-management, enabling individuals to identify personal triggers while maintaining their enjoyment of eating, consistent with patient-centred care principles [17, 18, 20, 21].

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Aim: To co-design an educational resource for LBHS patients to help manage their reflux in the form of a cookbook.

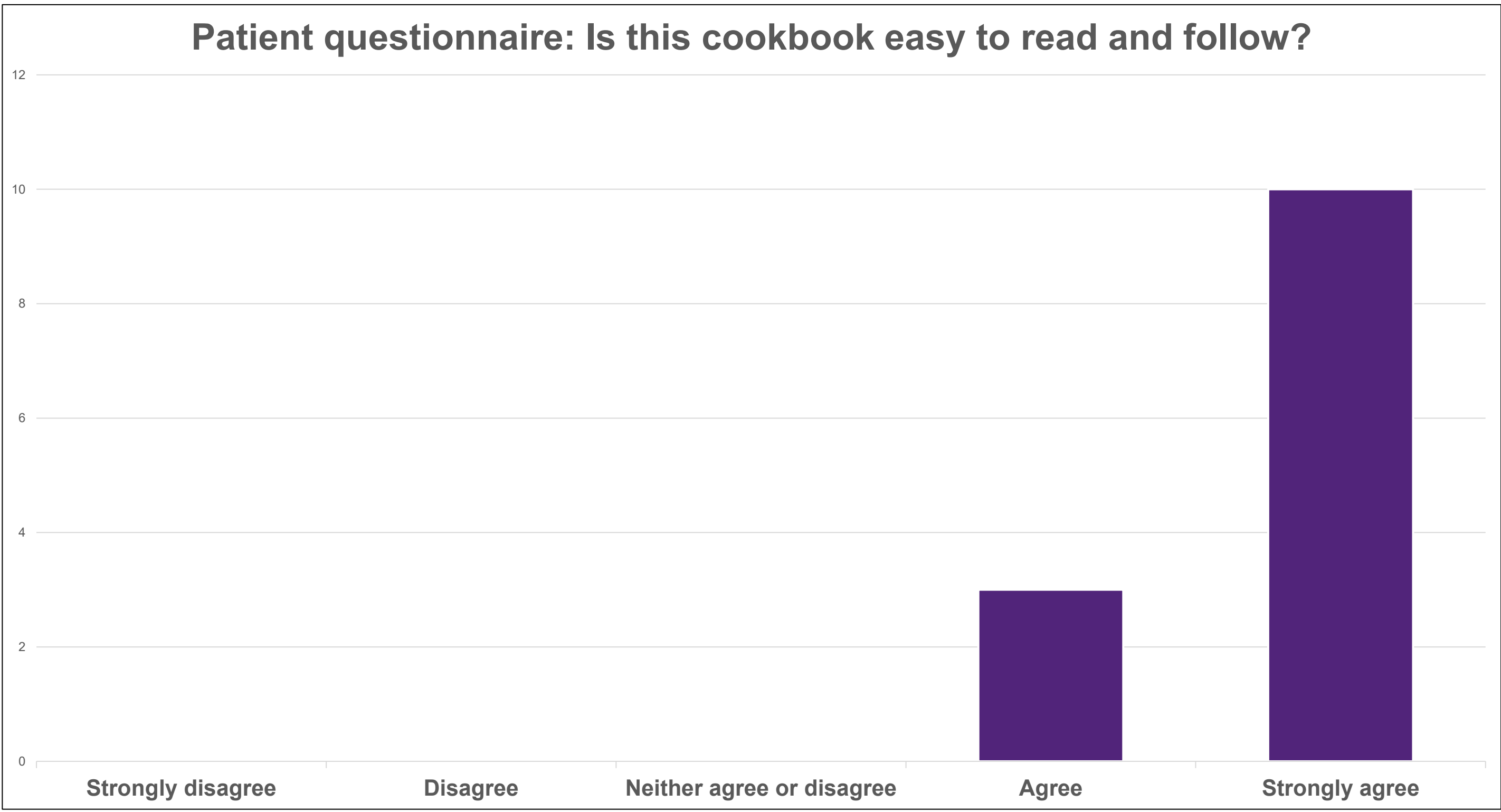
Methods

1. Appropriate consumers were identified and engaged as partners to co-design a reflux education cookbook for the LBHS population. A total of 20 consumers were invited to participate, including adult patients with lived experience of LPR/LPS affecting voice and/or swallowing attending Speech Pathology services within the LBHS catchment. Additional input was provided by outpatient SPs and Dietitians (DTs).
2. Consumers completed an initial anonymous questionnaire consisting of 5 questions, utilising 5-point Likert scales and free-text responses to identify priorities, educational needs and preferences.
3. Pre-questionnaire findings directly informed the content, structure and design of the cookbook.
4. A draft cookbook was developed, and then reviewed by consumers using a follow-up questionnaire. This provided structured insights into consumers’ perceptions of the cookbook’s content, layout, readability and usability.
5. Consumer feedback guided final revisions, including culturally-appropriate recipes and accessibility-focused layout and language, to ensure relevance for the LBHS population.



Results

A 43-page reflux education cookbook was co-designed with consumers and locally published. This resource integrated clear, accessible reflux education with 14 recipes, 26 snack and meal ideas, and practical food-swap options tailored to the needs and preferences of the LBHS community. Consumer priorities identified through questionnaires, particularly regarding usability, readability and cultural relevance, informed the content, layout and language. The final resource was well received, with high levels of satisfaction reported by both patients and LBHS staff, indicating strong acceptability and perceived usefulness as a patient-centred reflux self-management resource.



Consumer feedback from follow-up questionnaires:

- “The cookbook looks professional and easy to read!”
- “Recipes are easy to make and ones I would use!”
- “Easy to understand, simple recipes, look as though substitution examples would be simple too... Love that it includes deep-fried vs air-fried as that is one of my triggers.”

Conclusion

This consumer co-designed reflux cookbook demonstrates that a collaboratively developed, locally relevant educational resource is acceptable and meaningful to patients and staff and supports patient understanding and confidence in managing reflux symptoms. By integrating patient priorities, preferences, and lived experiences, the cookbook provides clear, practical education that patients perceive as relevant and usable in daily life.

Involving consumers throughout the development process fosters strong engagement and acceptance, highlighting the value of co-design in creating patient-centred resources that support reflux self-management within the LBHS population.

