Improve Osteoarthritis (OA) Knee Care through KneeBuddy mobile application

Tan Jianyue¹, Rosy Tai¹, Derek Lee², Yang Mingxing³, Dr Ang Chia Liang², Jeffrey Ng⁴, A/Prof Celia Tan¹

Singapore Healthcare ¹SHHQ, ²SGH, ³SHP and ⁴IHiS



Total respondents: 108

Will you recommend this

app to your patients?

5. Users' feedbacks

with positive reviews.

81 Physiotherapists (SGH)

• During the first quarter of 2015, a survey on 108 health care

professionals from SingHealth was conducted to ascertain the

relevance of the mobile application for OA Knee patient before

No

108 Yes

increasing, in less than 3 months since launch on 1 April 2015,

it was launched officially. 95% felt that the mobile application

was useful and would recommend it to their patients.

27 Nurses (SGH Ward 76 & Camden)

KneeBuddy has achieved over 2,800 downloads* and

4. Results

No 0



An App for Ostheoarthritis Knee Care

Do you think this app might

be useful to your patients?

1. Introduction

- Introducing <u>SingHealth's KneeBuddy</u>:
- Singapore's first mobile application with comprehensive osteoarthritis (OA) knee care information at patients' and caregivers' fingertips.

Management 2015

• <u>Top 15</u>*

to global

disability

• <u>Top 40*</u>

Disability-

adjusted

life years

(DALYs)

for

contributor

2. Problem

OA

• <u>Top 10*</u> most disabling diseases in developed countries

OA hip and knee

*Note: Figures from World Health Organization (WHO)

Easy download and access to specific information required about OA Knee management

Why Mobile Application

Inter-professional team to provide care for the patient as a whole

Ability to access

SingHeath's

mobile medical

appointments

Frequently

Asked

Questions

(FAQs) on OA

knee care

Recent and relevant information to be disseminated quickly without cost of reprinting information brochures/leaflets

Patients' self **empowerment** to manage their own care plan

Knowledge of medical conditions of **OA** Knee and treatment options

Osteoarthritis Knee Care

on KneeBuddy KneeBuddy **DOWNLOAD FREE**

> Information of SingHealth's **Orthopaedic** clinics and

> > services

Knee care tips and exercises

"I would like to see more "Overall, I am rehab exercises in KneeBuddy satisfied with what "This app is useful & the app has to offer" "The information easy to use" provided by KneeBuddy is easy to understand"

• 67.06% of downloads are from Singapore and the mean age group is between 25 to 34 years, with 5.5 % in the above 65 age group.* Hence, KneeBuddy's main users may be the caregivers as well as potential OA knee patients.

• *Note: Figures are updated as of 18 June 2015 with the use of Google Analytics

Future

• Expected increase

annually due to rapidly

aging local population

which leads to higher

incidence of chronic

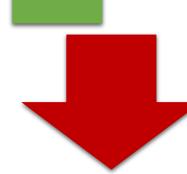
diseases such as OA

Current

- OA Knee accounts for 1,454 knee replacement surgery done in Singapore **General Hospital** (SGH) in 2014, an estimated 27% increase from 2010
 - **Key Objectives**

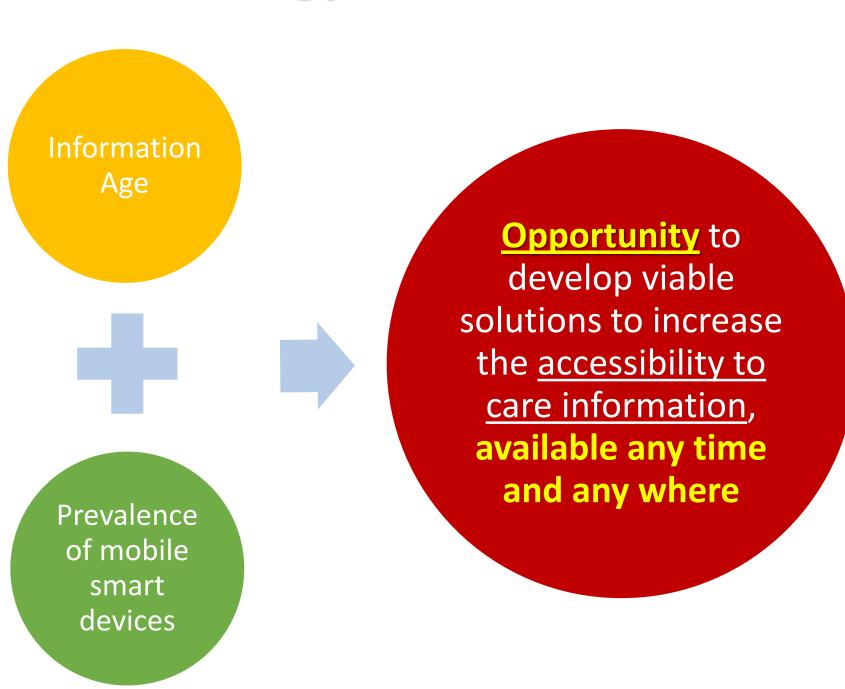
Knee

Educating hence empowering the patients and caregivers to manage OA Knee



To help reduce deterioration and **dependency** on health care institutions for surgical and rehabilitation services

3. Methodology



- A cross institutional and professional project team comprising of medical and non-medical staff at SingHealth, was formed to develop an inter-professional, comprehensive, informative and interactive mobile application to provide easy access to updated OA knee care information ubiquitously.
- Over a period of 8 months, regular meetings were held to design KneeBuddy's care content to present a holistic view of knee care information for caregivers, public and patients, involving advices and care plans from prevention to rehabilitation.

IT'S SIMPLE AND EASY TO USE!



6. Conclusion

• KneeBuddy is the first inter-professional educational OA Knee mobile application for patients and caregivers in Singapore.

Benefits to patients & caregivers

Exercises to Easy-tofacilitate selfunderstand care and home knee care rehabilitation information A single and credible source

- KneeBuddy is now used by all knee replacement patients in SGH as part of the treatment process to facilitate better care for patients.
- With a steadily increasing daily average downloads, this is a testament of how popular KneeBuddy has been with patients, caregivers and health care providers.

What's next for KneeBuddy?

- Increase the richness & varieties of care content More exercises for rehabilitation
- Access to SingHealth's mobile registration to obtain queue number for SGH
- Functionalities enhancements: Reminders and notifications







SingHealth DUKE NUS

ACADEMIC MEDICAL CENTRE



Centre Singapore





