

# Project Novo 2.0

## Group 7-32

Lee Kern 4A1

Bryan Yeo 4S1

Derek Tang 4S1

Daryl Chan 4P2

Brian Siew 4P2

Multi-Year Project

## **Section 1: Overview**

### **1. Area of Concern**

Parkinson's is the second most common neurological degenerative disorder in Singapore and is chronic, incurable and progressive, with no known way to prevent it. In Singapore, between 6,000 to 8,000 people suffer from Parkinson's.

Based on numerous interactions with People with Parkinson's (PwP), the public and Parkinson Society Singapore (PSS), our beneficiary, we found out that there is a severe lack of public awareness of Parkinson's, with many mistaking Parkinson's for other neurological diseases.

This is an alarming problem, as Parkinson's is more prevalent in those over 50 and an ageing population in Singapore will exacerbate this. Hence, it is essential to address the awareness issue.

Through further interaction with PwP's, we have realised that many were afraid to interact with the public as they felt misunderstood by others. Thus, we seek to restore confidence in patients and show that the public is accepting of who they are through organising activities for increased interaction between us students, the public and PwP's.

### **2. Challenges Identified**

Many Singaporeans are not aware of Parkinson's disease. PSS gave feedback that many people did not know about Parkinson's, despite it being the second most common neurological degenerative disorder in Singapore. During our interviews for the documentary, we found that close friends and family of Parkinson's patients are often puzzled by the intermittency of their symptoms and become less willing to communicate with them, resulting in increased social isolation of PwPs.

### **3. Underlying Problem**

Given that Parkinson's will become increasingly prevalent in Singapore and the lack of social support for Parkinson Society Singapore and public interaction with the Parkinson Community, how might we raise awareness amongst the general

public for Parkinson's such that the public as well as medical professionals in the field can better understand and empathise with PwPs in 2018 and beyond?

#### 4. Plan of Action

We decided that we had to let the public know more about Parkinson's, eliminating any possible misconceptions that they might have. Furthermore, we also aimed to enliven PwP's lives, increasing their acceptance in society.

#### **Section II: Implementation of Action Plan**

Date	Event	Objective
January to February	<ol style="list-style-type: none"> <li>1. Liaising with PSS to ensure the continuity of the project</li> <li>2. Recruitment of a Resource group for help in documentary filming</li> <li>3. <b><u>Start of creation of new Parkinson's Simulator</u></b> <ul style="list-style-type: none"> <li>- 2nd Simulator was coded with Arduino and 3D printed to make the simulations more realistic</li> </ul> </li> <li>4. <b><u>Continued posting on Instagram</u></b> <ul style="list-style-type: none"> <li>- Posting of facts and events to document progress and raise awareness about common misconceptions about Parkinson's</li> </ul> </li> </ol>	
March	<ol style="list-style-type: none"> <li>1. <b><u>Filming of Documentary</u></b> <ul style="list-style-type: none"> <li>- Carried out at PSS and NNI</li> <li>- Worked with a resource group</li> <li>- Showcased the daily lives of PwPs, how Parkinson's has affected their lives and involved interviewing PwPs, NNI professors and PSS staff.</li> <li>- Shown at our seminar and uploaded on YouTube</li> </ul> </li> <li>2. <b><u>Service Learning Summit booth</u></b> <ul style="list-style-type: none"> <li>- Showcased simulator and Parkinson's facts with more than 60 signatures</li> </ul> </li> </ol>	Raising Awareness
April	<ol style="list-style-type: none"> <li>1. <b><u>Editing of documentary</u></b></li> <li>2. <b><u>Move to Beat Parkinson's</u></b></li> </ol>	Raising Awareness,

	<ul style="list-style-type: none"> <li>- Allowed for interaction with PwPs</li> <li>- Raised awareness about Parkinson's to the public</li> <li>- Gathered more than 100 signatures from people of all walks of life</li> <li>- Understood how Parkinson's has changed the PwPs lives</li> <li>- Showcased our Parkinson's Simulator to members of the public and even to Minister Desmond Lee</li> </ul>	Direct Interaction
May	<p><b>1. <u>Enliven Sessions 1 and 2</u></b></p> <ul style="list-style-type: none"> <li>- Brought along PwPs and their caregivers to Sentosa Nature Discovery to participate in a Nature Trail</li> <li>- Also taught the PwPs how to fold origami and tie decorative knots</li> <li>- This aimed to increase their finger dexterity, which help slow the onset of Parkinson's</li> <li>- Provided an avenue from which we could interact with them and develop a greater understanding of Parkinson's</li> <li>- The PwPs liked the Arts and Craft sessions and requested for the instruction sheets to be passed to PSS</li> </ul> <p><b>2. <u>Battling Parkinson's: The Seminar</u></b></p> <ul style="list-style-type: none"> <li>- Held at The Red Box</li> <li>- Worked with NNI and PSS</li> <li>- Invited a neurologist from NNI to give a talk on Parkinson's Disease, how it affects people and what the symptoms are</li> <li>- Showcased our documentary and Parkinson's Simulator</li> <li>- Gathered 45 pledges from the public to support Parkinson's</li> </ul>	Direct Interaction, Raising Awareness
June	<p><b>1. <u>Setting up of RfP website</u></b></p> <ul style="list-style-type: none"> <li>- <a href="http://www.runforparkinson.com">www.runforparkinson.com</a></li> </ul> <p><b>2. <u>Parkinson's Simulator at HDB Hub and Jurong Library</u></b></p> <ul style="list-style-type: none"> <li>- Self-designed</li> </ul>	Direct Interaction, Raising Awareness

	<ul style="list-style-type: none"> <li>- Allowed participants to experience symptoms of Parkinson's through Simulation devices</li> <li>- Aimed to generate awareness and empathy amongst participants</li> <li>- Over 250 people participated and signed pledges to show support</li> </ul>	
July	<ol style="list-style-type: none"> <li>1. <b><u>8th Singapore International Parkinson Disease and Movement Disorders Symposium</u></b> <ul style="list-style-type: none"> <li>- Showcased our documentary and Parkinson's Simulator</li> <li>- Showed it to doctors and other professionals working in the area of Parkinson's</li> </ul> </li> <li>2. <b><u>VR Parkinson's Experience</u></b> <ul style="list-style-type: none"> <li>- Alters between 1st and 3rd person</li> <li>- Gives a better insight to the lives of PwPs</li> <li>- Features scenes of a earlier stage able-bodied patient who reveals that her symptoms would become worse without exercise</li> <li>- Features a later stage patient who suffers from many symptoms of Parkinson's due to the wearing effects of medication</li> <li>- Aims to eliminate stereotypes of how Parkinson's patients interact and let people know that they are not faking the symptoms</li> </ul> </li> </ol>	Raising Awareness
August	<ol style="list-style-type: none"> <li>1. <b><u>Run for Parkinson's</u></b> <ul style="list-style-type: none"> <li>- Charity walk-run event</li> <li>- Aimed to increase public awareness and impart the message that exercise is the more effective way to manage Parkinson's</li> <li>- Booths that showcased Parkinson's Simulator, Knot Tying and our VR Parkinson's Experience</li> <li>- Confirmed sponsorships from NParks, Compressport and AOX</li> <li>- VR camera from Professor Cai Yiyu, NTU, Tentage from Siap Hui Ming, Backdrop from YouPrint, Generator from Delivery Express,</li> <li>- Invited Mdm Rahayu Mahzam, MP for</li> </ul> </li> </ol>	Raising Awareness

	<p>Jurong GRC to be our Guest of Honour</p> <ul style="list-style-type: none"> <li>- Invited Straits Times reporter to report on the event</li> <li>- The New Paper and Berita Harian also reported on the event, writing news articles</li> <li>- Around 350 people came for the event</li> <li>- <a href="https://www.straitstimes.com/singapore/more-than-300-people-take-part-in-charity-run-to-raise-awareness-about-parkinsons-disease">https://www.straitstimes.com/singapore/more-than-300-people-take-part-in-charity-run-to-raise-awareness-about-parkinsons-disease</a></li> <li>- <a href="https://www.beritaharian.sg/setempat/larian-amal-bagi-tingkat-kesedaran-parkinson">https://www.beritaharian.sg/setempat/larian-amal-bagi-tingkat-kesedaran-parkinson</a></li> </ul>	
--	--	--

**Section III: Project Outcomes**

**1. Accomplishments**

We gathered much public support from our events, raising around \$9000 from donations and got around 350 participants for Run for Parkinson’s, many of which were from the public and this helped to expand our outreach and increase awareness of Parkinson’s.

Our group has a outreach of more than 10000 people, which includes 300 key medical professionals. Our Instagram account and simulator booths had an outreach of 500 people each.

**2. Reflections**

Through this project, we learnt how to empathise with PwP on a deeper level, which significantly changed our perceptions of the community. Before the project, we did not fully understand the daily challenges Parkinson’s patients face, and this led to our limited knowledge regarding the extent of symptoms of Parkinson’s. However, after long-term interaction with many patients as well as discussions with professionals in the field, we discovered that Parkinson’s has a profound impact on the patient not only physically, but emotionally, socially and psychologically.

On hindsight, the medical professionals we engaged contribute to the broader social ecosystem of Parkinson’s in Singapore and we could have created more opportunities for their interaction with caregivers and relatives to contribute to the

holistic well-being of PwPs. We, as Novo, will hence strive to increase common understanding in the Parkinson's community as a whole, with our team for next year and in possible careers, for we have learnt it is ultimately sustained interaction and communication that will bridge the Parkinson's patients with the general population.

### **3. Scope of Impacts**

Community Impact: With all our events that aim to raise awareness such as Parkinson's Simulator and Run for Parkinson's, we hope that the public has become more knowledgeable about Parkinson's disease. Through such events to raise awareness, we hope that the public will have a different view on PwP and eliminate their misconceptions about them. This would allow for PwP to be more widely accepted in our society.

Community Involvement: Our Parkinson's Simulator sessions allowed for members of the public to be involved in trying out the Simulator, allowing them to experience some of the symptoms of Parkinson's disease. Furthermore, with Run for Parkinson's, we managed to get 16 volunteers from all walks of life to help support our event. We hope that we have allowed them to gain more knowledge about Parkinson's disease and eliminate any possible misconceptions that they had.

Resolution of Underlying Problem: Given that we identified that there was a lack of awareness about Parkinson's Disease and the many misconceptions of Parkinson's by the public, we held many events to expose the public to Parkinson's Disease, which we hoped would eliminate any prior misconceptions. For example, our Parkinson's Simulator allowed members of the public to try out first hand some symptoms PwPs face daily. They would be able to gain more knowledge about Parkinson's disease. Furthermore, with The Straits Times and Berita Harian reporting on Run for Parkinson's, it allowed for more people to understand about Parkinson's, which helps in our aim to raise awareness about Parkinson's.