

Doctor Hope; Calming and Comforting Loneliness in Parkinson's Disease

One evening while making rounds in the movement disorders unit, I happened to hear a Parkinson's disease (PD) patient crying like a lonely little girl. She had been admitted to the hospital because of rapid motor decline, aggression and inability to cooperate with care. To my amazement, when the patient was given a doll, she smiled, becoming calmer and more cooperative. Her clinical symptoms improved, as did her sleep and social interactions, and, shortly afterwards, she was discharged. After that episode, we continued thinking about how dolls could be used as a therapeutic intervention to help people with PD, particularly those in a later stage.

Old-age loneliness is a major problem which worsened during the COVID-19 pandemic and can exacerbate health problems [1,2]. The pandemic meant physical distancing become commonplace worldwide. Such distancing can evoke subjective feelings of loneliness amongst the elderly, which, alongside mass media announcements about their higher risk for severe illness and COVID-19 related mortality, has made the elderly even more worried and fearful, increasing symptoms of anxiety and depression. In PD in particular, these symptoms can affect the severity of motor symptoms, including tremor, gait, and dyskinesia, as well as reduce the efficacy of dopaminergic medications [3].

So, are there ways to mitigate loneliness, psychological stress and social isolation? Of all non-pharmacological interventions, doll therapy stands out as the simplest method to reduce problem behaviours, next to face-to-face interactions with another person. Thus, doll therapy, as a care tool, has been integrated into long-term care plans in some nursing homes and senior living facilities [4,5].

'Dr. Hope' is the Chulalongkorn Centre of Excellence for Parkinson's Disease & Related Disorders' mascot – a simple, cheerful, infant-like figure, which, as the name suggests, reflects the optimism we, as physicians, want to give our patients (Fig. 1A). As patients place a tremendous value on such hope, citing it as the most important element that allows them to cope with their illness, Dr. Hope helps patients feel valued, offering a meaningful relationship and reminiscence.

Physically seeing the doll is the primary factor that stimulates patients' imaginations and strengthens their feelings of attachment, comfort, identity, and social inclusion, and its human-likeness seemingly important for enhancing its positive effects. Indeed, it has been shown patients prefer a doll with a human-like appearance to a stuffed bear [4]. Based on this, we developed a baby-sized 'Dr. Hope' doll, soft and cuddly yet realistic looking with a thick fabric head, torso, and limbs, and detailed features to encourage empathy and social skills. Its outfit includes a red tulip-like hood and a matching stalk-like green suit (Fig. 1B). The red tulip has been associated with Parkinson's awareness since the early 1980s and was adopted as the official symbol of Parkinson's at the 9th World Parkinson's Disease Day Conference in 2005. The feel of the doll is also important. Dr. Hope is made of super soft plush

polyester, to feel warm and comfortable, mimicking the skin texture of a real baby. It offers a big, warm and comforting hug (Fig. 1C).

There are various theories as to why Dr. Hope works in PD. It potentially offers meaning and purpose for patients. Instead of constantly being a receiver of assistance and care, caring for Dr. Hope can help patients feel useful and needed, and offer something positive to focus on. Another theory is that Dr. Hope brings back happy memories of parenthood. Some patients enjoy rocking, cuddling and cooling to Dr. Hope which can serve as a trigger to resume expression and communication, as well as improved speech. Hugging Dr. Hope helps PD patients feel comforted, soothed and safe which can benefit both their symptoms and quality of life, regardless of their gender or ethnicity.

Nevertheless, we should not pass over the ethical issues related to doll use with questions related to age-appropriateness and infantilisation raised [4], therefore use of such items requires careful thought. When utilised in a meaningful way, underpinned by respect and understanding, Dr. Hope has the potential to increase well-being, implying that patient self-worth and dignity may, in fact, be endorsed. However, it is important that the efficacy of doll therapy depends on a patient's condition and stage. In PD, it is probably most appropriate and beneficial to patients in the advanced stage where dementia and mental health problem are common issues. The best approach, therefore, is to casually introduce Dr. Hope and allow patients the choice to decide whether they are interested in it or not. If not, trying again as their dementia progresses.

Further studies are needed to examine these benefits in an experimental setting and hopefully be corroborated on a larger scale. Moreover, we want to look at ways to incorporate technology into Dr. Hope to boost patient's social excitement levels and engagement with care (Fig. 1D).

While more research on Dr. Hope is needed, it has shown promise in providing meaning and comfort for those living with Parkinson's disease. Very simple and inexpensive, with no risk of medication interactions or side effects, Dr. Hope offers a worthwhile therapeutic option when faced with challenging behaviours including depression, agitation, aggression, anxiety, and combativeness. We believe Dr. Hope not only improves PD patients' mental health, but also potentially improves both their, and their carers' quality of life. However, we must caution that provision of Dr. Hope should never be a substitution for human contact.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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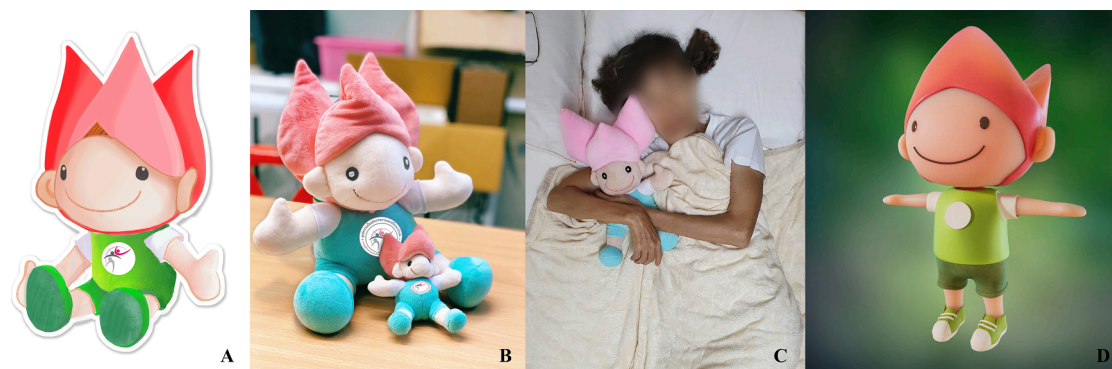


Fig. 1. (1A) The birth of Dr. Hope begins with concept sketches; (1B) Prototype of Dr. Hope doll (W210 × D165 × H340 mm and 610 g); (1C) Dr. Hope gives our patients comfort, calm and pleasure, which is so heart-warming; (1D) 3D animation of Dr. Hope.

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