

LIEN CENTRE FOR

2009-2019

# PALLIATIVE CARE

LCPC  
turns 10!

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About It



**REFLECTIONS FROM  
THE FRONTLINE:**  
Of Data Collection

**MODERATELY  
LIFE-EXTENDING  
TREATMENT:** Is it worth it?

**TAKING  
BABY STEPS:**  
In Caring for  
Vulnerable Babies

**IN SICKNESS AND  
IN HEALTH:**  
What Patients and  
Caregivers Say



# Contents

04

10 BREAKTHROUGH  
MOMENTS IN  
LCPC'S HISTORY

We walk you  
through LCPC's  
biggest milestones.

01 Message from  
the 'Editor'

A/P Cynthia Goh welcomes  
readers to the magazine.

02 The Past, Present  
and Future of LCPC

Prof Eric Finkelstein  
reflects on LCPC's journey  
thus far and lays out a new  
direction for the future.

08 Role Reversal:  
Putting the  
Psychologist on  
the Couch

We switch places with  
Dr Irene Teo and ask her  
the questions, for once!

10 At the Frontline of  
Data Collection

Reflections from those  
who interface directly with  
patients and their families.

12 The First Time

A qualitative data  
collector's perspective  
on the initial visit.

13 Ignorance Is  
Not Bliss: Informing  
Patients to Minimise  
the Chances of  
Treatment Regret

Learn why it's not always  
best for patients to make  
their own treatment choices.

14 From Deciding for  
Patients to Helping  
Patients Decide

Dr Semra Ozdemir takes  
you through the process  
of designing a decision  
aid for ESKD patients.

16 It Takes Two  
Hands to Clap

Join Dr Chetna Malhotra  
on her journey towards  
better patient-physician  
communication.

18 To Spend Or  
Not To Spend

Dr Brett Doble ponders  
the costs and benefits of  
subsidising moderately  
life-extending treatments.

20 Diary of a  
Palliative Care  
Clinician Researcher

Take a peek into Dr Grace  
Yang's working life!

22 The Motivations &  
Hopes of Our Research  
Participants

What do patients and  
caregivers have to say  
about participating in  
research studies?

24 Going Global

Expanding palliative care  
research one project at  
a time.

28 Building A Robust  
Research Community

Prof Eric Finkelstein sums  
up the LCPC research  
experience.

32 Spearheading the  
Spread of Knowledge

Learn about LCPC's  
education journey with  
Dr Alethea Yee.



36 Going by the Book

The genesis of the SG  
Pall eBook, as told by  
Dr Alethea Yee.

37 An Award-Winning  
Educational Experience

LCPC's Palliative Care Course for  
Social Workers wins an award!

38 Taking Baby Steps

LCPC helps to roll out guidance  
for the care of vulnerable babies.

39 To LCPC with Love

Feel the love as LCPC's staff  
and partners share their well-  
wishes and future hopes for  
the Centre!

40 Appendix

Everything you might want  
to know about what LCPC  
has done, including grants  
awarded, publications and  
courses developed!

45 Our Team

A breakdown of the people who  
make LCPC what it is.

# Message from the 'Editor'

I send my warmest congratulations to the Lien Centre for Palliative Care (LCPC) on its 10<sup>th</sup> anniversary! The LCPC has marked this milestone with the publication of this volume and with a special 10<sup>th</sup> Anniversary Conference on October 11, 2019, themed Delivering Value at End-of-Life. A very warm welcome to all our readers!

I remember back in 2007 when I was approached by the Lien Foundation, which wanted to support Palliative Care in Singapore. I was asked what was needed. Should they build another hospice? I told them that we did not need another hospice service, but there was need for a centre for training and for research, so that we can provide better palliative care for patients and their families in Singapore and in the region. It took many iterations before the LCPC came into being as a centre in the then new graduate medical school at Duke-NUS. The first article "10 Breakthrough Moments in LCPC's History" (pages 4-7) chronicles the milestone achievements of the Centre. From impacting government policy with the National Strategy for Palliative Care in 2012 to our first (AM • EI) Golden Apple Award in 2019, LCPC has consistently worked to push forward the boundaries of palliative care in Singapore and beyond.

The hard work of its very able team of researchers and educators, led by Professor Eric Finkelstein and Dr Alethea Yee, respectively, have together achieved the Centre's desired outcomes. Find out more about the work of LCPC's researchers and Education team in our series of interviews and feature articles, beginning on page 8.

LCPC is also blazing a trail for palliative care practitioners in the region with the APPROACH project. A research collaboration with 11 investigators from hospitals in 8 regional countries, APPROACH seeks to understand cancer patients' quality of life and perspectives on end-of-life care and treatments in Asia. Learn more about the project and hear from some of the regional collaborators in our "Going Global" article (pages 24-27).

It has been my privilege to work with inspirational people on the LCPC Advisory Board, in particular, previous chairpersons, Mr Ng Kok Song and Dr Jennifer Lee, and present chairperson, my mentor, Ms Lim Soo Hoon, whose wisdom have guided the development of the Centre; also the exceptional Mr Lee Poh Wah, CEO of the Lien Foundation, whose radical thinking and incisive mind keeps everyone on their toes.

Finally, in "To LCPC with Love" (page 39), LCPC's staff and partners elaborate on what LCPC means to them, and their hopes for LCPC's future. For myself, my hope for the Lien Centre for Palliative Care is for it to remain grounded in seeking the welfare of the patient and his family in the training and the research that it does, for that is why we exist.

I hope you will enjoy perusing the following pages, and join us as we look back at the past, and look forward to the future.

## Associate Professor Cynthia Goh

Senior Consultant, Division of Supportive and Palliative Care,  
National Cancer Centre Singapore  
Deputy Chairperson, Lien Centre for Palliative Care Advisory Board







Eric Finkelstein is Professor of Health Services and Systems Research at the Duke-NUS Medical School, Singapore and the Executive Director of LCPC. He also holds appointments at NUS School of Public Health and Duke University Global Health Institute.

# THE PAST, PRESENT AND FUTURE OF LCPC

*Thanks for leafing through the pages of this magazine, which pays tribute to our 10<sup>th</sup> Anniversary and the many individuals who made LCPC a success. Below we take you on a brief tour of our past, present and future. We hope you agree that LCPC has much to be proud of, but also that much work remains to be done. We look forward to working with many of you as we embark on new research and education efforts aimed at improving the lives of patients with life-limiting illnesses.*

—  
**Eric**

## PAST

The Lien Centre for Palliative Care (LCPC) was established in 2008 via a partnership with the Lien Foundation, the National Cancer Centre Singapore (NCCS), Singapore Health Services Group (SingHealth), and Duke-NUS Medical School. The mission of the Centre is to promote high quality research and education in efforts to improve the end-of-life experience for patients and families in Singapore and the region.

The early years of LCPC were successful in creating the infrastructure for the Centre's long-term success. During this time period, LCPC also worked with our partners in palliative care to produce the National Strategy for Palliative Care (NSPC), a crowning achievement for LCPC and for Singapore. The next phase of LCPC began with a new leadership team that continues to this day. In 2014, I took over as Executive Director, and Dr Alethea Yee, a leading palliative care clinician and former Head of the Department of Palliative Medicine at NCCS, came aboard as Director of Education.

## PRESENT

I am proud to say that LCPC's footprint and our ability to make a difference has continued to grow. LCPC is now an internationally recognised Centre in palliative care research and education with a portfolio of local and regional research projects that are highly relevant to patients and policymakers, and with a series of new blended learning courses. The team has grown to nearly 40 faculty/staff, garnered over S\$5 million in competitive research grants, published over 70 manuscripts and has ongoing collaborations in 8 countries. We have also developed a series of new courses, trained over 2000 individuals, worked with collaborators to develop guidelines in neonatal palliative care and incubated an online palliative care e-book, among other accomplishments. None of this would have been possible without the initial vision of Dr Cynthia Goh (LCPC's first Director) and the generous support of our founding partners, which continues to this day. We at LCPC are extremely grateful, but also recognise that much work remains to be done.

## FUTURE

To address gaps in treatment, the next phase of LCPC will emphasise initiating and incubating interventions and new models of care aimed directly at benefiting patients. This includes, but is not limited to, early and integrated palliative care financing and delivery models, how to use patient decision aids to optimise treatment discussions, and how best to improve health communication. We will also continue to nurture partnerships within the local and regional community. As our Chairwoman Lim Soo Hoon reminds us: "Partnering and capacity building is an absolutely critical part of our mission, as amazing things can be accomplished with the support and cooperation of like-minded bodies." We will not lose sight of this mantra. We will continue to produce high quality academic outputs, but will emphasise influencing practice and policy within and beyond Singapore. We will also make a concerted effort to extend our research beyond cancer, given that non-cancer deaths represent the majority of deaths today, and this remains a significant gap in palliative care research both locally and regionally.

Our educational offerings will continue to focus on partnerships and palliative care training at the generalist level. There will be a greater emphasis on using our education incubator to galvanise the community to generate new palliative care educational offerings. We will continue to promote the use of advanced learning technologies such as artificial intelligence in efforts to expand our reach within and beyond Singapore. As we have done in the past, our research and education efforts will continue to align with the Ministry of Health's (MOH) priorities, yet we will maintain our focus on leadership, capacity building and inclusiveness.

*Line item details of our past accomplishments can be seen at the end of this publication, but our hope is that by leafing through the pages in between, you will get a sense of both the people and projects of LCPC and our commitment to improving the lives of the most vulnerable. As you read each article, please be reminded that none of these efforts would have been possible without our clinical collaborators and partners within and beyond the palliative care community and the many participants in our studies. Their courage is truly remarkable and we are forever grateful.*



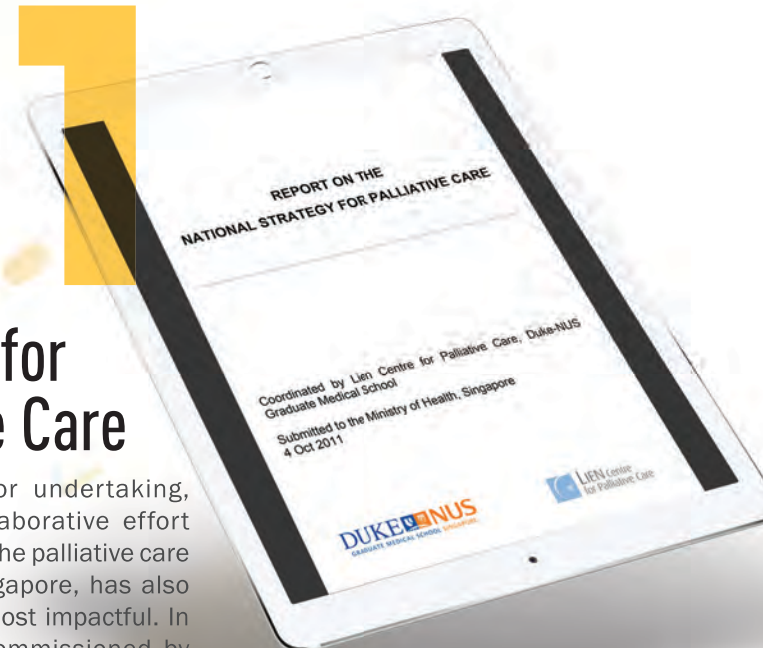
HAPPY BIRTHDAY!  
LCPC TURNS 10!

# BREAKTHROUGH MOMENTS IN LCPC'S HISTORY

What better way to celebrate the occasion than by charting the highlights of a decade filled with meaningful contributions? Join us as we recap the 10 breakthrough moments in LCPC's history thus far.

## 01 National Strategy for Palliative Care

LCPC's first major undertaking, which was a collaborative effort with luminaries in the palliative care community in Singapore, has also been one of our most impactful. In 2010, we were commissioned by the Ministry of Health (MOH) to produce Singapore's first National Strategy for Palliative Care (NSPC). The NSPC comprised three broad recommendations in the areas of 1) service development, 2) training and research, and 3) public education and awareness. Within these three broad areas were more specific propositions such as the need to dispel misconceptions and promote acceptance of palliative care amongst the general public, as well as incorporate palliative care training into relevant undergraduate and diploma courses. All three recommendations were emphatically accepted by MOH at the beginning of 2012, and have guided the implementation of palliative care initiatives and our research and educational mission ever since.



## 03 Incubator fund opened to encourage collaboration

In 2013, LCPC set up a Research Incubator to help palliative care researchers in Singapore overcome the competing priorities on their time and limited resources at their disposal. The incubator provides researchers with the funding, manpower and subject matter expertise necessary to implement successful projects. Since its inception, 14 projects have been funded and nearly \$1 million has been disbursed.

For more information, please visit <https://www.duke-nus.edu.sg/lcpc/research/research-incubator>.



## 02 First research grant awarded

In January 2011, LCPC was awarded its first external research grant, namely a New Investigator grant awarded by the National Medical Research Council to Assistant Professor Chetna Malhotra. This grant was the first of many, and spearheaded the Centre's work in understanding what Singaporeans want at the end of life.

Read more about the project and its findings on pages 16-17, where Dr Malhotra takes you through her personal research journey! For a review of all research grants awarded, please see the Appendix on pages 40-44.







## 05 Embarked on first cohort study of patients with advanced cancer and their caregivers in Singapore

The Costs and Medical Care of Patients with Advanced Serious Illness in Singapore (COMPASS) project, funded by the Singapore Millennium Foundation, assesses patient and caregiver preferences for end-of-life care, perceived quality of communication with physicians and the extent to which pain and other symptoms are adequately managed in patients. Each of these is a priority area identified in Singapore's National Strategy for Palliative Care. For this project, implemented in collaboration with the National Cancer Centre and National University Hospital, Singapore, 600 patients and a proportion of their caregivers have been followed since 2016. Several manuscripts have been published using this data, and the results have been presented to MOH and the Agency for Integrated Care (AIC) in efforts to improve identified gaps in treatment.

## 04 First foray into multi-country collaborative research

In 2016, LCPC initiated a regional research collaboration with clinicians in 8 countries. This is the first study to provide a cross-country comparison on palliative care services for cancer patients in various middle- and low-income countries in Asia.

The core research domains for this ongoing study focus on assessing quality of care, awareness and preferences for prognostic information and quality of life among advanced cancer patients.

More information on this collaboration can be found on pages 24-27.



## First commentary published in a local newspaper

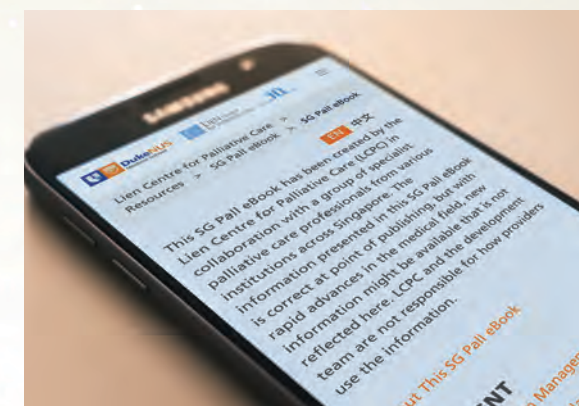
As part of its efforts to educate the Singaporean public about palliative care issues, LCPC has been regularly contributing commentaries on this subject to the local media. The first of these, written by Professor Eric Finkelstein, was published in The Straits Times in March 2016. Titled "How much would you pay to extend your life by a year?", the commentary explores the concept of present bias and how it influences patients' treatment choices for life-limiting illnesses.

Turn to page 13 for an elaboration of the issues explored in this commentary!

## SG Pall eBook

Rollled out in 2017, the SG Pall eBook is a one-stop online reference for basic palliative care information and knowledge. Healthcare professionals anywhere now have the option of digesting key facts and figures in bite-sized chunks, from the convenience of any Internet-enabled device. It even features a handy opioid conversion tool to facilitate the prescription of optimal doses.

Read about the genesis of the SG Pall eBook from Dr Alethea Yee's perspective on page 36.



## Neonatal Guidance

The neonatal guide "Guidance on Supportive and Comfort Care in Vulnerable Babies" was released in 2018 (the first of its kind in Singapore) to educate clinicians on the physical, emotional and social needs of vulnerable babies. This helped to plug an existing gap in the knowledge base of Singaporean healthcare professionals who were as yet unfamiliar with the complex needs of vulnerable babies. The guide was crafted over a 12-month period with input from various neonatological authorities in Singapore.

For more information about LCPC's Neonatal Guidance, turn to page 38.

## First decision aid developed for elderly ESKD patients



The Centre, together with clinicians from SingHealth, developed new counselling materials to be used as patient decision aids (consisting of a booklet and video with patient testimonials) for elderly patients with End Stage Kidney Disease and their family caregivers. These decision aids convey age-appropriate information about both dialysis and kidney supportive care (i.e. conservative management) in an objective manner. This will help patients make informed treatment choices based on their preferences and values. The decision aids will be tested to help us understand their acceptability and feasibility in the Singapore setting.

Dr Semra Ozdemir shares more about developing the decision aid in her article on pages 14-15.

## 1<sup>st</sup> (AM•EI) Golden Apple Award won by LCPC

In August 2019, LCPC's Palliative Care Course for Social Workers (Basic) was awarded a Programme Excellence Award at the Academic Medicine Education Institute (AM•EI) Golden Apple Awards 2019. The annual AM•EI Golden Apple Awards recognise inter-professional educators in SingHealth and Duke-NUS who have transformed learning and advanced the boundaries of educational excellence for better patient care. Our course was lauded for "applying best practices in education philosophies and following a scholarly approach".

For more information about the Palliative Care Course for Social Workers, turn to page 37.





# ROLE REVERSAL: PUTTING THE PSYCHOLOGIST ON THE COUCH

Q & A

In this article, we pull a role reversal and subject LCPC's Dr Irene Teo to questions that she, as a trained psychologist, would usually put to her patients!



**Irene Teo, Ph.D.**  
Assistant Professor



Reader challenge: Give a thought to how you would answer the questions marked Ψ

Ψ **Q:** Have you ever pondered the question "Who am I?", and what makes you who you are?

**A:** So this is how we're going to do this [laughs]. Well, in the context of this interview, I am a clinical health psychologist. This means the focus of my work is on mental healthcare in chronic medical illnesses.

I'm trained as a scientist-practitioner in the area of psycho-oncology. I am particularly interested in how patients cope psychologically with cancer and the behavioral management of its symptoms. I'm also interested in helping families of patients adjust through the illness trajectory and during the bereavement phase.

Ψ **Q:** How have the experiences of your childhood/younger self shaped who you are today?

**A:** I suppose I've always been interested in connecting with people and listening to their life stories. A pivotal point for me was a Health Psychology class during my undergraduate studies. We studied how factors like personality and motivation can influence health behavior, adaptation to chronic illness and patient outcomes. It was fascinating. I wanted to learn *more*, do *more*. That really fueled what I wanted to do.

Ψ **Q:** How would you describe your purpose today?

**A:** My overall goal is to see psychological perspectives adding value to supportive and palliative care research and practice. To me, that can be through improving our understanding of the coping processes that occur with patients and their families, or it can be through testing interventions that can be potentially useful to them.

As most existing interventions have been developed/tested in Western settings, the first step is to adapt and pilot them locally. We've conducted two pilot cognitive behavioral therapy (CBT)-based interventions – one with advanced colorectal cancer patients and another with advanced breast cancer patients.

Ψ **Q:** What motivates you?

**A:** I'm definitely motivated by the overall research environment we are in. LCPC has given me the space to grow as a budding, independent researcher establishing a research agenda. The research community, locally as well as internationally, is one that has been collaborative and inspiring.

In my clinical work, it is always motivating to hear patients say therapy has been beneficial, whether it is from being able to express their worries in a safe space, processing what they are experiencing, or thinking about what they are facing from an alternative perspective that makes them feel better.

**Q:** What are the main reasons palliative care patients are referred to a psychologist?

**A:** In an oncology setting, patients are usually referred when they present with psychological distress (symptoms of depression or anxiety). There are a variety of reasons for distress, including adjustment difficulty with diagnosis/prognosis, anticipatory grieving and maladaptive coping behaviours. Patients may also be referred for behavioural management of symptoms such as breathlessness, fatigue, pain and insomnia, as well as the distress that comes along with having those symptoms.

**Q:** Can you describe what best supportive care is, and what advice you would give to a patient who has moved on to best supportive care?

**A:** Best supportive care (BSC) refers to when patients no longer receive treatment with curative intent, and the aim is symptom management and improvement of quality of life. Usually, patients reach this point after several unsuccessful stages of treatment.

Some patients are more accepting of BSC treatment than others. I've worked with patients who expressively state their desire to "let nature take its course", but there are also patients who struggle with being recommended BSC as they perceive it to be prematurely giving up in their fight against cancer. It's a tough situation, and we try to help patients balance being realistic and prepared, while maintaining their hopes.

Generally, we advise patients to focus on things that are within one's control. Patients sometimes ruminate about things like disease progression and how much time they have left, which are unfortunately often out of their control. If that is the case, we work on shifting their focus to making conscious choices on how they would like to live that are meaningful to them.

Ψ **Q:** Have there been any changes in the way you view your life from doing the work that you do?

**A:** I think there certainly are. Sometimes, in working with individuals who do not fit with what we expect of the typical cancer patient – for instance, someone young, with no family history of cancer, or who doesn't engage in

## HIGHLIGHT

### The HIBISCUS Project

**Co-PIs:** Irene Teo (Singapore), Tamara Somers (USA)

**Study purpose:** To test the cross-cultural feasibility and acceptability of a 4-session programme (CBT-MV) integrating CBT symptom management, mindfulness and engagement in values-directed activity that addresses multiple symptom burden

**Target group:** Women with advanced breast cancer in Singapore (45 patients) and USA (40 patients)

**Main findings:** The study was feasible to run with high adherence rates and high reported satisfaction. Recruitment rates may be improved by offering the intervention in Chinese.

**Funded by:** Duke/Duke-NUS Collaboration Pilot Projects Award, 2016



risky health behaviours – it strikes me how unexpected life can turn out. It reminds me we shouldn't take our health, functional capabilities or loved ones for granted. We should live our fullest lives – as best as we can with all our limitations.

Ψ **Q:** What are your hopes for the future?

**A:** I am keen on research that yields direct clinical implications. I would like to continue focusing on testing psychosocial interventions for patients and their families, but on a larger scale to establish their effectiveness. In a time when we are striving for evidence-based practice, it becomes important that we have empirical evidence for our treatments and healthcare models.



AT THE FRONTLINE OF DATA COLLECTION:

# REFLECTIONS FROM THOSE WHO INTERFACE DIRECTLY WITH PATIENTS AND THEIR FAMILIES



Compiled and commented on by  
**Ratna Singh**  
Manager, LCPC

My team jokingly calls me the patron saint of LCPC. I am one of the longest serving members and oversee an incredible team of field staff who collect data for all of our projects. They work at the frontlines of LCPC, so it is critical that their interactions with participants are courteous and professional.

I am so proud of our team and could not ask for a better group. Day-to-day, they tirelessly sit with patients and their families at an incredibly challenging time of their lives. It requires sensitivity and patience to listen to the stories participants share. It also requires resilience as the stories heard can't be unheard, and many are not easy to listen to. To help the team cope and to ensure they continue to have positive interactions with participants, we have regular meetings to share stories and to support one another. Although I wish you could meet every team member personally, following are a few words they have provided to give you a sense of what working as a field data collector for LCPC means to them. I hope it conveys the notion that our work is not just founded upon scientific rigour, but also great empathy.



"There have been times when I faced certain challenges, such as having to ask sensitive questions about end-of-life care to caregivers and patients. I have learnt that during interviews, apart from just asking questions from the survey, it is important to also ask the study participants how they are doing and let them know they are more than just a data point to us. Sometimes, a word of care and concern can provide strength to the caregivers and patients amidst all that they are going through. I think that is what many of them appreciate during interviews, and it has also helped me to build rapport with them along the way. I feel very thankful that many of them have been supportive of the research that we do and have opened up to us."

**Jing Rong**, working on the PISCES project



"Having to conduct fieldwork with terminally ill patients facing end of life means having to constantly deal with my own feelings of helplessness at not being able to lessen their pain or make it better for them. The emotions may get overwhelming at times, but sharing with the colleagues and friends around me has provided me with a sense of calm and relief. Gradually, I have learnt to cope by focusing on the optimism and resilience demonstrated by the patients themselves. Ironically, it is the patients' resilience that has helped me grow and made me stronger. Most importantly, this job has given me the opportunity to challenge myself in areas that I would otherwise not know I could excel in."

**Rachel**, working on the SCOPAH/SHAPE projects



"I find interaction with project participants special and valuable, especially since we meet them at regular intervals for our cohort studies. Over time, the bond forged with most of them isn't simply just that of interviewer and participant. They treat us as friends, opening up and sharing information beyond what is in the surveys. Sometimes, participants extend heart-warming gestures such as offering treats, with some even specially preparing them. It shows that they truly value us and appreciate the time we spend with them.

Over time, it heartens me to see those whose condition improves, even if only for a little while; while it saddens me to see many deteriorate, especially when we go and meet them in the ward or hospice or, as is often the case, hear of their passing. Bereavement interviews with caregivers tend to be hardest to conduct, but I am so proud of our participants who bravely soldier on and know that what we are doing will help others.

All these experiences have taught me to empathise and also to be thankful for what life has to offer."

**Michelle**, working on the COMPASS project

"Typically, we would recruit patients and caregivers while they are waiting for their medical appointments at outpatient clinics. Sometimes we would encounter difficulties in reaching out to participants, but we would often encourage each other within the research team to maintain patience and be respectful of patients' wishes, because that is important.

Throughout my work with study participants, I feel heartened when I think about the relationship we've formed with the patients and caregivers. There are those who would remember our names and faces, and even provide us with timeless advice about how to live a meaningful life e.g. "Health is wealth", or "Don't worry be happy".

I feel honoured to be able to journey with them in the fight against illness. And I hope that the research findings can be used to improve the quality of life of patients in the future."

**Wendy**, working on the COMPASS project

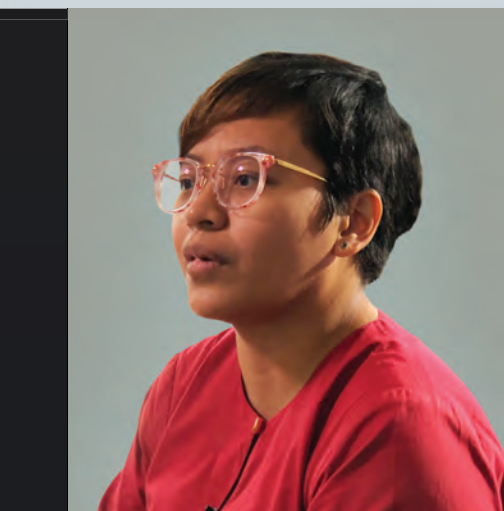
"Working with palliative care patients has broadened my perspective on what matters most to people at the end-of-life. I remember when I first came on board as a research staff, I was nervous in recruiting my first palliative care patient. "Will she get mad at me?", "How can I bring myself to ask her such sensitive questions?", "What do I do if she breaks down?"; these were some of the thoughts that went through my mind then. My first recruited study participant was a sweet lady in her early 60s, and though it was our very first time meeting, she opened up so much about her life and struggles as a patient. As I listened to her, I came to realise that when life has reached a point where death becomes so evident, the only thought a patient has is to live day by day and to count each breath as a blessing from above. That was humbling.

As I gained more experience working with palliative care patients, I have learnt the importance of offering a listening ear and interviewing them not just in the name of 'work', but truly from my heart. We never know when our final conversation with them will be, so make every interview count! My work has also taught me to be patient, more empathetic towards others and also to let go when they pass on."

**Renette**, working on the SCOPAH project



# A QUALITATIVE DATA COLLECTOR'S PERSPECTIVE ON THE INITIAL VISIT



**Siti Hazirah  
Binte Mohamad**  
Research Associate, LCPC

The first time you meet a stranger may not seem the most opportune time to get them to ponder about death and mortality, but as a qualitative researcher in palliative care, that may be our only chance to deep dive into life's most personal questions in order to improve health outcomes. In fact, it is a prerequisite that we are comfortable with talking about facing death in its many variations, and from a multi-disease perspective. While we work with a variety of people – patients, caregivers and healthcare professionals – each meeting is incredibly poignant and brings with it its own unique reflective points.

When you first encounter a person and explain your research questions, you invariably begin with “some of these questions might be distressing and you may skip any you do not feel comfortable responding to.” Yet, in my time here at LCPC, I've seen courage on so many fronts, in which people choose not to skip these uncomfortable questions, including existential questions about life and death, but instead face them head on. While collecting data or stories, I've seen many tears shed (including some of my own) and many sobs suppressed, but at the same time, I have also seen many smiles shared, laughter (I know this sounds unlikely but yes, there are things

to laugh about even at the end of life, no shortage of humour despite the brevity of the human journey), and most humbling of all, I've seen the human capacity for love and care.

I've seen love from patients as they continue to put their families first despite facing seemingly insurmountable health challenges. I've seen love from caregivers for their loved ones, usually in their touch and glances, and most movingly when asked to contemplate about their loved one's eventual passing. I've seen a deep sense of care from social workers for their clients, in the ways that they have helped patients bring to fruition their wishes for end-of-life care. I've seen care from nurses and doctors, when they describe their conviction in palliative care and support and affirm the decisions made by their patients.

My experience as a data collector and its glimpses into such raw yet genuine moments has been truly humbling. To help process all that I've learned, I engage in memo writing, as this gives me the opportunity to reflect on the interview process and jot down my thoughts on what stood out for me while conducting it. In that sense, it occurs to me that my reflections here can be thought of as the memo of all memos. It has also made me realise that the beauty of palliative care is its ability to become a mirror onto which we reflect our fears, insecurities and worries about death. Ultimately, this allows for my subsequent encounters to be sessions where these topics can be collaboratively explored for the benefit of future patients, which is our ultimate objective.

## IGNORANCE IS NOT BLISS: INFORMING PATIENTS TO MINIMISE THE CHANCES OF TREATMENT REGRET

If you could travel through time and meet with your future self, what do you think he or she would say about the choices you're making now? More likely than not, you'd be on the receiving end of a scolding, for research shows we do not plan well for our future selves. Most of us are naturally afflicted with something known as present bias, which implies an irrational preference for current over future consumption, and therefore too little investment in the future.

The impact of present bias on the decision-making process cannot be understated. At LCPC, our research has shown that present and other forms of bias can adversely influence how patients with life-limiting illnesses make treatment choices. For example, when we surveyed over 500 healthy older Singaporeans and 320 cancer patients on how much they would be willing to pay to extend their life by one year if diagnosed with a life-limiting illness such as advanced cancer, the former group stated that they would pay less than \$3,000. Cancer patients, on the other hand, were willing to pay roughly \$18,000, six times what healthy adults would pay in the same situation. Clearly, the current and future selves are seeing things differently. This may lead healthy individuals to not buy enough health insurance and/or not save enough for future medical expenses.

The disparity in decision-making is even more pronounced when caregivers become involved. In the same study, we also discovered that caregivers would pay up to \$61,000 to extend the lives of their infirm relatives, thereby demonstrating far more willingness to pursue aggressive treatments. Since patients in Singapore regularly defer to their family members in matters of treatment

choice, this is likely to result in persistent overtreatment, often against patients' actual wishes.

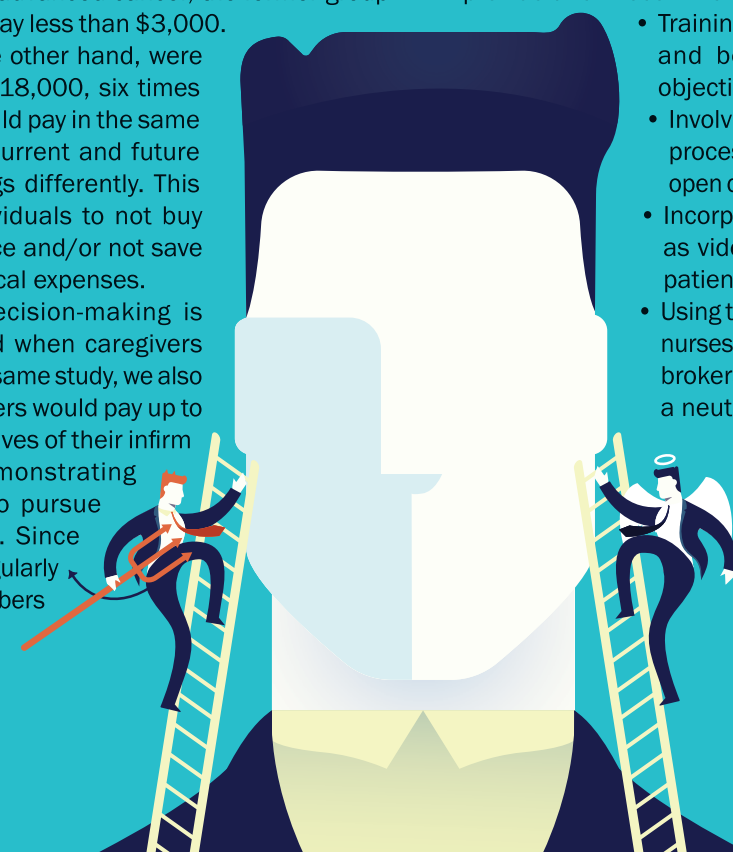
A third bias involves doctors themselves, whom one might expect to be the authority on such matters. However, for myriad reasons, doctors also tend to have a preference for aggressive treatments. Even more concerning, in our RETREAT (Tailoring Health Communication Materials to Improve Decision Making of Elderly ESKD Patients) study, we discovered that both patients and caregivers are highly influenced by physician recommendations, even when such recommendations do not agree with their initial choices. Taking the advice of their doctors unreservedly, therefore, may also lead to treatment regret among patients.

So what can be done to address these biases? There are no easy fixes, but our research findings have enabled us to provide a few recommendations. They include:

- Training clinicians to communicate risks and benefits of all treatments in an objective manner
- Involving patients in the decision-making process via advance care planning and open discussions about treatment choices
- Incorporating patient decision aids, such as videos and brochures, to better keep patients informed
- Using third parties, such as social workers, nurses or patient navigators, as information brokers to provide relevant information in a neutral and objective manner

Not all patients will want to be involved in making their own treatment choices, but for those who do, efforts should be made to help them and/or their caregivers make decisions that they are least likely to come to regret.

**In two separate commentaries published in *The Straits Times* and *Today* respectively, Professor Eric Finkelstein wrote about the importance of keeping patients informed regarding their treatment options. The highlights have been distilled here.**



You may also like to check out the original commentaries by visiting the following links:

<https://www.straitstimes.com/opinion/how-much-would-you-pay-to-extend-your-life-by-a-year>

<https://www.todayonline.com/commentary/when-doctors-and-caregivers-do-not-help-patients-make-best-decisions>



# From DECIDING FOR PATIENTS to HELPING PATIENTS DECIDE



**Semra Ozdemir, Ph.D.**  
Assistant Professor

**My passion in research is giving voice to patients.** That's why a large portion of my work focuses on creating decision aids to help patients and their families make informed decisions. One area where our research is making a big difference is in the difficult decision of whether or not to pursue dialysis for elderly patients with end stage kidney disease (ESKD).

Dialysis is an amazing medical advancement that has helped many

ESKD patients, but it turns out that for elderly patients with multiple comorbidities, the benefits of dialysis are unclear. In fact, some studies show that for elderly patients, dialysis may not extend life at all compared to palliative care, and does not improve quality of life. It is also an expensive treatment. Yet, nearly all elderly patients in Singapore receive dialysis. We were curious to understand why and to learn whether some patients regretted this decision.

To get at these answers, we conducted a series of studies. These studies generated several peer reviewed publications but most importantly taught us the following:

- Most patients and caregivers were not aware that palliative care was an option for them.
- They had no idea of the relative costs and benefits of different dialysis modalities and how that compares to palliative care.
- Of those who were aware of palliative care, many regarded palliative care as giving up.
- 1 in every 10 patients surveyed expressed regret with their choice to pursue dialysis.

PERITONEAL DIALYSIS

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PALLIATIVE CARE

Based on this information, together with clinicians from SingHealth, we wrote and were awarded a grant from the National Medical Research Council to develop a decision aid specifically for elderly ESKD patients. To understand why patients have chosen a specific treatment and how the decision was made, we first conducted qualitative interviews with elderly patients and their caregivers.

Several patients felt that they were pressured by their families and/or doctors to initiate dialysis. They recalled feeling "there is no choice but to start dialysis".

**PATIENT** "So I was told that I had to undergo dialysis."

**CAREGIVER** "There was no choice; we had to start dialysis straightaway."

To receive independent feedback on the development of the decision aid, we also appointed an Advisory Panel consisting of physicians, nurses, social workers, renal counsellors as well as a patient representative. Advisory Panel members also pointed out that differences in priorities between patients and family caregivers can lead to conflict within the family.

Learning from these perspectives, we developed a decision aid for patients aged 70 and above. The goal of the materials is to provide balanced and age-appropriate information about all treatment options, and to help patients choose a treatment option that is best for them.

The decision aid includes three parts:

- A video that includes testimonials from patients and families about how they cope with ESKD, how they chose a treatment and their advice to those making a similar decision.

- A booklet that provides unbiased information about all treatment options.
- A list of questions (called a value clarification exercise) that patients can take, where the score gives an indication of which treatment option may be the best fit for them.

Patients had different reasons for pursuing dialysis or palliative care. Some of the testimonials we heard were very touching.

**PATIENT** "My grandson is still young. I want to watch him grow up. As my daughter studies until very late every day, no one looks after the three grandchildren, so I have to take care of them. I want to live a few more years to watch them grow up."

Family caregivers had their share of hardship. They shared their experience and the burden on them.

**CAREGIVER** "Initially, I felt burdened. Because I was the only one at home who knew the steps of dialysis... I felt that my social life was affected because dialysis takes 10 hours to end. She [patient] still has mood swings now and then, and that's quite a burden to us. But we are used to it already, so we take it as it is."

It was not easy to recruit patients and caregivers for the video testimonials, as their experiences can be very personal. However, those who agreed to share said that, at the end of the day, they want to help newly diagnosed patients, as they know how hard this process could be and it is important to hear what patients have to say.

**CAREGIVER** "It is good to listen to the advice of the doctors for things you might not know about, such as specific medical conditions. I think it's very important for the family to speak to the patient and try to understand their perspective of what having lived a good life means to them."

In partnership with clinicians from SingHealth, we are currently testing the decision aid. If patients tell us that these materials truly allow them to make better choices and with less chances of regret, then we expect them to become standard practice at SGH and other centres in Singapore. I am confident that will be the case and that this effort will improve the lives of these patients.

Geok Poh, 82, and his wife Leong, 71, discussing their experience with ESKD.





## It Takes Two Hands to Clap:

# The JOURNEY Towards Better Patient-Physician COMMUNICATION



**Chetna Malhotra, M.B.B.S, M.D., M.P.H**  
Assistant Professor

"After moving to Singapore to join Duke-NUS in 2009, I became involved with a team of researchers working on the National Strategy for Palliative Care. That forever changed my future."

### NATIONAL STRATEGY FOR PALLIATIVE CARE RECOMMENDATION

Palliative care research should be promoted to improve the quality of palliative care and inform policy making.

I then went on to write my first independent grant proposal aiming to understand what people want at the end of life. This was awarded the New Investigator Grant Award by the National Medical Research Council. Together with Professor Eric Finkelstein, I designed a survey in which we presented older Singaporeans, patients with advanced cancer and their caregivers with various end-of-life scenarios and asked them which ones they preferred. **All three groups were unanimous in telling us that they did not want aggressive life-extending treatments, but instead wanted their end of life to be at home and be free of pain.**

Unfortunately, that wish remains unfulfilled for many. Many instead die in hospitals after receiving treatments and interventions that they never really wanted. Why does this happen and what can we do prevent that?

We still do not have all the answers, but what we know is that patients, caregivers and physicians do not always talk to each other about what patients really want at the end of life. How wonderful would it be if such discussions were to take place, and be documented in a way that physicians and caregivers can easily access when the time comes to make decisions on behalf of the patient!

With that in mind, we set out to study our existing model of advance care planning. Advance care planning is a process by which the patient, in consultation with healthcare providers and/or caregivers, makes decisions about their future healthcare should they become incapable of participating in medical treatment decisions. The Singapore model of advance care planning is implemented island wide by the Agency for Integrated Care and therefore our study was very policy-relevant. With colleagues at National Heart Centre Singapore and Singapore General Hospital, we conducted a randomised controlled trial with advanced heart failure patients to test whether advance care planning can facilitate end-of-life care consistent with patient wishes. Our results were not very encouraging. We realised that talking about death and end of life is still considered inauspicious, and therefore about 40% of our patients did not even finish the advance care planning

process. We also learnt that roughly half of our heart failure patients, even after advance care planning, did not fully understand their prognosis. Lastly, we recognised that as heart failure patients go through a very unpredictable and long period of decline, their wishes for end-of-life care changed as their illness progressed, and their advance care planning document did not always get updated to reflect their latest wishes. In fact, **nearly two-thirds of our patients changed their preferred type of end-of-life care (aggressive or non-aggressive) at least once during the two-year study period. This was concerning to us as advance care planning is increasingly being done with people who are generally healthy or patients with serious illnesses not at risk of imminent mortality, such as the heart failure patients participating in our trial.**



Based on these findings, we educated our partners to make them realise that communication needs to be an ongoing process. With colleagues at Duke University, we designed an intervention called TEAMS to improve the quality of communication between patients/caregivers and physicians. **Because communication is a two-way process, training physicians to communicate with patients/caregivers addresses only one side of the**

**equation. We knew that we also needed to empower patients/caregivers to participate more effectively during consultations.** We believed that if physicians communicated effectively and patients participated during consultations, patients would understand their prognosis better and be more likely to discuss their end-of-life wishes with their physicians.

TEAMS is unique in that it targets both physicians and patients/caregivers. The physician component of TEAMS teaches physicians to discuss prognosis and goals of care with patients. These are very important conversations to have in the context of planning for end of life, but at the same time are very distressing for patients and caregivers to have. Therefore, we also teach physicians to respond with empathy. We designed TEAMS as an online programme so that it can be disseminated widely at low cost.

The patient/caregiver component of TEAMS is a brief prompt sheet that includes structured questions to be put to physicians about diagnosis and prognosis. We know from our prior studies that patients are reluctant to bring up the topic of prognosis themselves. But when they do, physicians are more likely to discuss it during consultations. We therefore ask patients/caregivers to indicate on the brief prompt sheet the questions that they want to ask.

We have recently completed a pilot trial of the TEAMS intervention among oncologists and patients with advanced cancer. As our next step, we plan to conduct a randomised controlled trial of the TEAMS intervention to assess its effectiveness in improving patient-physician communication of emotional distress, prognosis and goals of care. If shown to be effective, this low-cost scalable intervention can be disseminated within the health system in Singapore in efforts to improve patient-physician communication for patients with life-limiting illnesses.



# TO SPEND OR NOT TO SPEND

## IS IT WORTH SUBSIDISING MODERATELY LIFE- EXTENDING TREATMENTS?



**Quantifying** how much individuals, and more broadly society, are willing to give up in order to have access to moderately life-extending treatments



**Estimating** the healthcare costs incurred by patients near the end of their life and how certain patient characteristics and preferences explain variation in these expenditures



**Determining** the relative costs, effectiveness and cost-effectiveness of competing treatment options for elderly patients with multiple comorbidities.

Information from our studies will be used to educate decision makers, whether they be clinicians, hospital administrators and/or government officials, on what treatments should be subsidised, by how much and what types of patients should be able to have access. Such an approach will ensure that high quality medical care that is affordable and equitably distributed among the population will be available to Singaporeans in need, recognizing that the only two certainties in life are death and taxes.



**Brett Doble,**  
**Ph.D.**  
Assistant Professor

In Singapore, as in nearly all developed countries, medical spending on individuals in their last year of life by both the government and the individuals themselves accounts for a disproportionate share of total medical spending. This disproportionate share has been identified as evidence of wasteful health spending. However, that may or may not be the case. In fact, one might reasonably conclude the opposite. Nobel Prize-winning economist Gary Becker and colleagues argue that if a person's wealth has no value after death (i.e. if they do not care about leaving a bequest), then they should be willing to spend all of their money on treatments even if the treatments only marginally extend life and/or have only the smallest chance of success. As economists see it, bankrupting oneself on efforts to extend life *could* be completely rational.

However, from the perspective of the government, having their citizens bankrupt themselves as they near death hardly seems fair, nor can governments themselves afford to spend all the taxpayer money they collect on treatments for those individuals close to death. To ease the burden of increasing medical costs, Singapore has implemented a number of programmes like MediShield Life and the Pioneer Generation Package, but with an ever increasing array of new and expensive treatments, some costing upwards of \$500,000 for those with life-limiting conditions, the government as well as individuals will reach a breaking point and will need to decide how much they are willing to give up in order to provide/receive treatment.

Governments around the world all struggle with this same problem, and need ways to help them decide how much is too much. This is important as governments ultimately have finite resources to allocate towards medical



The life of a palliative care clinician-researcher is an incredibly busy one. If Dr Grace Yang kept an on-the-job diary or blog, here's what it would look like.

# DR GRACE YANG

## DIARY OF A PALLIATIVE CARE

## CLINICIAN-RESEARCHER

### TUESDAY

I love Tuesdays! Tuesdays are Multi-Disciplinary Meeting (MDM) days where I get to catch up with the awesome clinical team. We discussed Mr Tan's condition. We discovered yesterday that he had a complex social situation and wanted the medical social worker to help. The pharmacist also gave advice about anti-nausea medications. It's so helpful when everyone is on the same page. Made me also think – how good that LCPC has an advanced palliative care course for social workers, pharmacists and therapists.

 [LABELS: PALLIATIVE CARE](#)

 [COMMENTS \(9\)](#)  [SHARE](#)

### WEDNESDAY

Today was a really satisfying day because I had a great time brainstorming with the LCPC researchers about a possible new project – inspired by my interaction with Mr Tan this week. We usually meet up weekly for lunch so that we can catch up with each other, so it's easy to have ad-hoc discussions when needed. So excited about the synergy when we all get together.



 [LABELS: PALLIATIVE CARE](#)

 [COMMENTS \(4\)](#)  [SHARE](#)

### THURSDAY

Weekly journal club sessions on Thursday mornings are the highlight of the week for me. Today, we critiqued a randomized controlled trial of a drug for the treatment of neuropathic pain, which was very clinically relevant. Gave an impromptu soundbite tutorial on p values and statistical significance versus clinical significance. It was very well received! (I am not biased.)

Sometimes we also present our research projects for discussion. I recently presented our study where we compared the consult model versus a combined oncology and palliative care model for cancer patients admitted to hospital. The pilot project was co-funded by LCPC in 2015, and we were subsequently awarded a grant from Singapore Millennium Foundation to conduct a stepped-wedge cluster randomized controlled trial of the model. We had great questions about how it worked and whether it can be implemented for other clinical teams.

 [LABELS: PALLIATIVE CARE](#)

 [COMMENTS \(8\)](#)  [SHARE](#)

### FRIDAY

In a pensive mood today. Clinical work has been quite heavy this week, especially with Mdm Lim and Mr Tan needing intensive support from the palliative care team. But it has also made me reflect on how we can do things better. Wondering how we deliver more integrated care for complex clinical cases, and how we can be more patient-centered. Grateful for some thinking time today to conceptualize some new project ideas – will mull over them this weekend and chat with both my clinical colleagues in NCC and my LCPC research buddies next week about it.

It is challenging to do both clinical work and research at the same time, but it is worthwhile. Doctors and researchers need to work together for the good of our patients. I'm so glad to have a great team of fellow researchers to collaborate with; and so privileged to work with a fantastic interdisciplinary team to support seriously ill patients and their families. I really feel I have been able to make headway with doing more research since joining LCPC.

 [LABELS: PALLIATIVE CARE](#)

 [COMMENTS \(15\)](#)  [SHARE](#)

### MONDAY, 8AM

Glad to be back at work after a restful weekend. Looking forward to checking on 40-year old Mdm Lim (not her real name) first thing in the morning. She has stage 4 lung cancer and was admitted last Thursday for increased breathlessness. The palliative care advanced practice nurse and I saw her for the first time last week. Wish she had been referred to us sooner, as she has been struggling with breathlessness and anxiety for some time. We gave her medication to help relieve her breathlessness and antibiotics for a chest infection.

She shared openly about her fears. She was particularly afraid that lung cancer would make her breathless. Breathlessness reminded her of a frightening near-drowning experience in her childhood. As she became more comfortable, she also shared about happier things like how she loved travelling and exploring different cultures.

Heading off to the wards soon. Just checking through the list of patients to see who else needs to be reviewed urgently.

### 11AM

Managed to see Mdm Lim together with the oncologist during our combined ward round. Good news! Her infection is getting better with the antibiotics. Bad news. The cancer is getting worse. The oncologist discussed treatment options. We discussed the implications of the various options, how it might affect her breathlessness, her energy levels and most importantly, her ability to continue travelling. Plan to pop back later in the afternoon to see if she has further questions about the treatment decision.

It was a fruitful ward round; we saw the new patients who were admitted over the weekend. Gave some input about pain medications for one patient and wound management for another. We also saw Mr Tan (also not his real name), a 70-year-old gentleman with advanced colon cancer. He had pain and nausea, for which we gave him some medications during the ward round. He will need a CT scan to diagnose what is going on – that will determine what the treatment options are. Going now to spend some one-to-one time with him, to find out more about what his concerns are and if there is anything else we can help with.

 [LABELS: PALLIATIVE CARE](#)

 [COMMENTS \(12\)](#)  [SHARE](#)





It takes courage and a generous heart for patients and their families to open up and share their experiences so that we can assess and collect data for the benefit of future patients. We asked a few individuals who had taken part in our research studies on what motivated them to participate, what their experience was like, their perceived benefits and how they hoped the research findings will be used. Following are some excerpts from what we heard.

“ I provided caregiving to my mum for nearly 18 years, and during this process I have attended many courses, talks and support group discussions intended for caregivers. I have learned and benefited so much. As a way to give back to society, I decided to take part in the study involving caregivers of dementia patients. ”

I hope my participation creates awareness and help for new caregivers who are lost, worried and scared; like I once was! ”

– Vivien, 63  
Caregiver for mother with advanced dementia  
Participated in the PISCES cohort project

“ May the research be used to equip and encourage palliative care medical teams in their valuable work to understand the patients' needs, walk alongside and support patients through their difficult journey. ”

– Brenda, 65  
Caregiver for patient with advanced cancer  
Participated in the COMPASS cohort project

“ The programme allowed me to address my concerns with practical solutions. The programme helped me view health in a comprehensive way and used matching technology. ”

– Patient with advanced colorectal cancer, 70, male  
Participated in the EPIC intervention project

“ I am glad that LCPC has initiated this research study, as it gives us [patients] a voice, it makes us feel good to know that our voices are heard and that someone is listening. ”

The research staff have displayed professionalism of high standards during my interaction with them and helped me to feel at ease when I am answering the survey questions. ”

– Patient with advanced cancer, 61, female  
Participated in the COMPASS cohort project

“ I hope for more awareness on this sickness so that people who are like just discovering it or what will know how to handle it better. ”

– Daughter of patient with advanced dementia, 49  
Participated in the PISCES cohort project

“ The programme made me happy and inspired. ”

– Patient with advanced colorectal cancer, 61, male  
Participated in the EPIC intervention project

“ The discussions on the various topics were extremely useful. They acted as a challenge of the views I had on some of the topics, such as managing fatigue and prioritising. ”

– Thomas, 74  
Participated in the EPIC intervention project



# THE MOTIVATIONS & HOPES OF OUR RESEARCH PARTICIPANTS

“ Cancer patients have formidable challenges in daily living such as pain, fatigue, poor appetite, fear of relapse... EPIC has a structured guide with hands-on approach in areas such as breathing, relaxation, problem solving, coping and the most important aspect of emotional healing. Four months since joining EPIC, I got to go for 3 different vacations, even up to 3 weeks long. It's evidence that I succeeded in managing my bowel irregularities. ”

– Olive, 68  
Participated in the EPIC intervention project

“ The life guiding principle that I identified [through the programme] has become the daily major driving force in my life, even when in pain. Activity pacing has also allowed me to become more aware of my bodily pain and to rest when needed. Now, I see the need to communicate more with my husband... There is a positive change in our relationship, as a result. ”

– Patient with advanced breast cancer, 43  
Participated in the HIBISCUS intervention

“ Okay, so for about the last two hours... I've shared with you the challenges and so forth, I do hope the information is used in a good way... [by] AIC... MOH... and doctors. ”

– Son of patient with advanced dementia, 56  
Participated in the PISCES cohort project

“ Despite my grandmother's passing, I am heartened to know that her legacy lives on through the way in which her experience has benefited future patients who might be going through the same dilemma as her. I am also glad to be able to honour her memory by helping patients like my grandmother to have their voices heard, so that they can receive treatments based on their preferences. ”

– Granddaughter of patient with advanced kidney disease, 31  
Participated in the RETREAT qualitative project

“ As I speak to you about it, it's becoming even clearer in my head what I need to do when the time comes, and actually it's helpful... like a counselling session [laughs]... You know what I mean...? Counsellors don't give you the answers... they let you think through for yourself. ”

– Daughter of patient with advanced dementia, 60  
Participated in the PISCES cohort project

“ My mindset is that, 'If I can help, why not?'. This also provides feedback to doctors to help them improve the healthcare for us. At the end of the day, taking part in this interview also means helping ourselves. ”

– Patient with advanced heart failure, 66  
Participated in the SCOPAH cohort project



# GOING GLOBAL

Our mission at LCPC is to be a world-class centre of excellence in palliative care research and education. However, that means nothing if we are not helping those who need us most. The reality is that although Singapore has room for improvement when it comes to assisting those with life-limiting illnesses, we are light years ahead of our neighbours in the region, where both palliative care providers and access to basic pain medicines are scarce or non-existent. For this reason, we have made it a priority to expand our footprint into the region.

To figure out how best to proceed, we tapped on the advice of our first Director and Deputy Chairperson of our Board, Dr Cynthia Goh. Dr Goh has not only trained many of the palliative care providers in the region, but also formed and chairs the Asia Pacific Hospice Network (APHN). Her advice was to tap on the network to engage palliative care clinicians interested to do research, but she also warned us that as these are very busy clinicians, we should start with a project that was reasonable but not too ambitious.

What came out was our APPROACH project. APPROACH stands for Asian Patient Perspectives Regarding Oncology Awareness, Care, and Health. To identify partners, we advertised on the APHN that we would co-fund a study (APHN also provided some funding) with the aim of surveying 200 advanced cancer patients regarding their perceptions on topics such as quality of life, quality of care, mental health, prognosis and treatment preferences. The idea was to find partners and build capacity, but also produce policy-relevant research. Eleven investigators in 8 countries have so far come on board, with 2 more in the works. LCPC develops and translates the survey, conducts on-site training, and then works with the sites to analyse the data and write manuscripts.

The project has been a resounding success. Two manuscripts have been submitted, one has already been accepted for publication and many more are in the works. These manuscripts are being used to influence local policymakers, primarily by showing gaps in treatment and trying to motivate them to fund investments to increase access to basic palliative care services. What's more, we are already in discussions with these partners for more ambitious studies, and expect many of these relationships to continue well into the foreseeable future and to expand to include both educational and research partnerships. You can read about what two of our APPROACH partners had to say on the next two pages.





# VOICES

## FROM THE REGION

### DRS GAYATRI PALLAT & JEAN JACOB

MNJ Institute of Oncology and Regional Cancer Centre  
Hyderabad, India

We developed a wonderful working relationship with the LCPC team while collaborating on the APPROACH study. As a palliative care team from a public hospital in a low-middle income country, we were grateful for the opportunity to participate in important research on the quality of life of advanced cancer patients, and the social and cultural determinants of quality of life in vulnerable populations. This type of research is important not only for our vulnerable patients and the healthcare professionals taking care of them, but also serves to inform health policy makers and leaders.

While conducting the study and analysing the results after that, the responses we obtained were surprising and a revelation to us! There has been very limited research in this area in resource-limited settings before, but LCPC amply supported us in overcoming many of our challenges, helping us to see this project through from the design stage to study implementation and manuscript preparation. We were happy to welcome the team from Singapore to our hospital in India, and it was an enriching experience for us all!

### DR SSU WYNN MON

Department of Medical Research,  
Ministry of Health  
Yangon, Myanmar

Collaborating with LCPC has been an important milestone in my career. I have been working with LCPC since 2016, on LCPC's multi-country collaborative project APPROACH. APPROACH is the very first collaborative project between the Department of Medical Research (DMR) and LCPC. It is also the first palliative care study in my country, Myanmar, aiming to understand the gap between patients' expectations and the care they receive, as well as the influence of this gap on patients' quality of life.

Findings from the APPROACH study have not only highlighted the unmet palliative care needs of advanced cancer patients, but also had a fruitful impact on palliative care policies and services. The successes and obstacles I encountered while working on APPROACH helped me to acquire solid knowledge on palliative care,

widen my vision on palliative care research and stretch my insights and confidence to grasp my professional goal.

I was also awarded a Vicky Toh Cancer Research Fellowship in 2018, and this gave me an opportunity to work at LCPC for a year. The greatest benefit I gained through this experience was the enhancement of my professional competency. I not only had the chance to interact with eminent experts in the palliative care field, but also to strengthen my research capabilities, understand the fundamental concepts of palliative care research and see how research projects are systematically conducted in the developed world.

I am also lucky to have made many new friends from different cultural and academic backgrounds. Through this experience, I am now better equipped to contribute to the development of palliative care services in my country as a leading researcher, and bring about better healthcare services for Myanmar cancer patients through palliative care research. As the collaboration between DMR and LCPC grows, many more developments in palliative care will take place over the next few years in Myanmar. I would like to thank the LCPC team for their continuous encouragement and support throughout the years.



# BUILDING A ROBUST RESEARCH COMMUNITY

With an intuitive grasp of healthcare research and a wealth of experience at his fingertips, Professor Eric Finkelstein is leading a charge to raise LCPC's profile in the region and beyond.

## Professor Eric Finkelstein

Executive Director  
Lien Centre for Palliative Care  
Duke-NUS Medical School

## LCPC RESEARCH STRATEGY

*To implement and promote innovative high quality research projects that are relevant to policy makers and practitioners and positively impact palliative care delivery both locally and regionally.*

### LCPC Research Themes

- Understanding and meeting patient/caregiver preferences regarding end-of-life care
- Pain and symptom management at the end of life
- Communication at the end of life
- End-of-life care financing and delivery models
- Early and integrated palliative/supportive care models
- Psychosocial interventions for patients and family caregivers
- Patient decision aids
- Quantification of serious health suffering



### What are your primary research interests and what compelled you to pursue these interests?

People think economics is about dollars and sense, but that is not really true. Economics is the study of choices under constraints of money and time. The choices people with life-limiting illnesses make are some of the most important, which is what drew me to this field. A lot of money is certainly spent on patients with life-limiting illnesses, but saving money is not the goal. What I want to do are studies that make sure all of the money is well-spent, while at the same time helping people experience an end-of-life experience that is most consistent with their preferences and beliefs.

### What are some of the current hot topics in healthcare/palliative care that your research addresses?

The basic premise of classical economics is that people can make rational choices. For many choices, including those related to health and health-seeking behaviors, this is likely to be the case. However, for people with life-limiting illnesses, understanding the extent of their bias and irrationality is important to ensure they are not being overtreated. Our current research focuses on this issue. We show, for example, that many patients have biased prognoses and are likely to believe that the effects of treatment are better than the data would support, and that they themselves will respond better than the average patient. As a result, they tend to pursue treatments with higher costs and lower effectiveness than they would otherwise. Family members tend to be even more biased, and to push for treatments to an even greater extent, as do many clinicians.

The common driver behind these beliefs and actions is excessive hope. It is hope for a cure that tends to cloud the judgement of many patients, caregivers and clinicians. This is an area that we have been trying to better understand. To combat the potential implications of excess hope, we are working with clinicians on several patient decision aids to help patients and families make more informed choices.

### What has the process of translating your research into practice been like?

My experience, in all but a few cases, is that the link between research and practice is not a straight line. It would be great if we did a study, published a paper, and suddenly there was a change in policy or practice, but that tends not to be how the world works. More likely we conduct our studies, publish our papers, present our research to clinicians, policymakers and, increasingly, to the general public via editorials and informal chats, and they in turn share the results with others. Only when there is a preponderance of evidence and support do changes begin to occur. This is especially true in palliative care, but my experience is that those changes are beginning to happen, due in no small part to our research and that of our colleagues in Singapore and elsewhere.

### How have LCPC's facilities and resources helped to advance your research goals and ambitions?

LCPC is extremely lucky to have the support of the Lien Foundation, the National Cancer Centre Singapore, SingHealth, Duke-NUS, and many palliative care and other clinicians within

and beyond Singapore. This has allowed us to be well-resourced, have access to patients with cancer and other life-limiting conditions, work closely with the palliative care community and other clinicians, and have state-of-the-science computation and information resources. By taking advantage of these resources, we have been able to expand our research and educational footprint within and beyond Singapore through a series of cross-sectional, cohort and intervention studies, and new courses in palliative care targeting doctors and allied health professionals. These efforts are critical to reach our ambition of being the premier palliative care research and education Centre in Asia.

### What has it been like working with the other researchers and staff at LCPC?

The LCPC team now includes roughly 40 faculty and staff, including clinicians, doctoral students, educators, data analysts and field data collectors, among others. Regardless of rank, we all share the common bond of helping to improve the lives of patients with life-limiting illnesses, and this overriding theme influences everything we do. I cannot think of a better team of individuals to work with. I am also grateful to have an incredibly supportive Board who donates their time to help ensure we are fulfilling our mission.

### What are the aspects of your role at LCPC that you enjoy most?

I find it personally rewarding to know that the research and education programmes we deliver will improve the end-of-life experience for patients. I also take great pride in mentoring the team and helping them grow as researchers and educators.

I would say mentoring faculty and staff at all levels to help them reach their goals is one of my greatest pleasures as Director of the Centre.

### What are the advantages of a Singapore location for LCPC's research as a whole?

Singapore is a developed country surrounded by developing countries that have a great need for palliative care services. These countries also tend to lack academics who can lead studies to show the value of palliative care in their communities. Given our proximity, we have made it part of our mission to engage in knowledge transfer activities with palliative care and cancer centres around the region that wish to conduct palliative care research. Our current APPROACH study, now in 11 hospitals in 8 countries, is one such example. This has allowed us to learn about the experiences of advanced cancer patients in each location, while at the same time training clinicians to conduct high quality research. This would not have been possible without Singapore's strategic location in the heart of Southeast Asia.

### What new breakthroughs do you hope the field of palliative care will make in the near future?

The reality is that palliative care does not need more breakthroughs, which often come with very high price tags. While these may help a few people, it is more critical to increase access worldwide to the inexpensive and effective medicines that already exist, and to implement proven strategies that can help people die with dignity and without undue pain and discomfort. What is needed are breakthrough strategies to get these interventions to those most in need.

## ON THE FUTURE OF PALLIATIVE CARE

### In what ways do you think LCPC can help to make some of these new breakthroughs?

Effective researchers need to engage in evidence-based advocacy. It is not enough to write papers and hope that policymakers act on our recommendations. LCPC needs to partner with key stakeholders to make sure that the right treatments meet the right people at the right times. We can do this by researching health communication, medical decision aids and psychosocial interventions, as well as by testing new models of palliative care delivery. We can also educate clinicians and allied health professionals about how best to treat patients with life-limiting conditions, and partner with policy makers and advocates to ensure our recommendations are enacted. This is one of the reasons why I recently joined the Lancet Commission on the Value of Death as similar commissions have been shown to be effective at evidence-based advocacy ([https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32388-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32388-2/fulltext)).

### How does the research community at LCPC compare to those at other reputable medical research institutions?

At ten years old, LCPC is a relatively new organisation. However, we have much to be proud of. Our team is publishing in top journals and producing state-of-the-art education materials. Although we are small, I would say the activities going on in our Centre rival those in any top palliative care centre around the world. And our future is extremely bright.







*Dr Alethea Yee is a specialist in Palliative Medicine and a Senior Consultant at the Division of Supportive and Palliative Care (DSPC) at the National Cancer Centre Singapore. She was head of DSPC from 2011-2018, but now serves as Clinical Director of Assisi Hospice. She took up the role of LCPC's Director of Education in 2013.*

# SPEARHEADING THE SPREAD OF KNOWLEDGE

Few have worked more tirelessly to raise the profile of palliative care in Singapore than Dr Alethea Yee. But LCPC's Director of Education will have you know that she could never have done it alone.



## What led to the formation of LCPC Education as a unit?

If palliative care is to gain credibility as a discipline among healthcare professionals, healthcare administrators and the public, its practice must be founded on scientific evidence and sound education principles and pedagogy. LCPC is Singapore's first academic centre in palliative care and it came at the right time. Palliative care services were sprouting all over the island, but most healthcare professionals were too busy with service needs to focus on academic research. With the support of Lien Foundation and the recruitment of full-time researchers and part-time clinicians, LCPC managed to start the academic ball rolling.

As a palliative medicine specialist, however, I soon realised that there would never be enough specialists like me to attend to all the patients who need palliative care, especially with an ageing population and increasing incidences of cancer and end-organ failures. I also realised that the majority of palliative care patients require only generalist care. These two insights led me to the conclusion that we need to train all healthcare professionals (medical, nursing and allied health) to deliver basic palliative care to patients at relevant touchpoints. Providing the necessary training is where LCPC Education comes in.



**What personal skills and professional expertise do you draw upon in your role as Director of Education?**

I learnt that doctors don't know it all! In the field of education especially, we need to lean on the collective wisdom and strengths of non-clinicians with the relevant experience. I have a great team of ex-teachers who understand education pedagogy and principles and who, with the help of our very competent support staff, operationalise our courses effectively. Practising clinicians are crucial for curriculum and content development but they really have no time to operationalise any deliverables except for content knowledge. Vision without execution remains only vision, but the LCPC Education team has been brilliant in executing LCPC's vision and mission. I feel so blessed and humbled to have such a great team to work with. They are the ones brimming with ideas and wanting to do more. My role as Director of Education is really more of setting the team's overall direction, as well as guiding them in the context and content of their work. I also link them to the appropriate clinicians and

promote collaborations with partners. The success of LCPC Education is a collective team effort.

**What are some of the more significant milestones that LCPC Education has achieved over the past ten years?**

Over the last decade, we have developed several courses in basic palliative care for doctors, nurses, social workers, pharmacists and therapists. All these courses have received overwhelming response and positive feedback, and we intend to run them regularly so as to reach out to as many healthcare professionals as possible. We also facilitated the development of the first ever supportive care guidelines for neonates in Singapore and organised a conference to promote the use of these guidelines. Since then, neonatal units in the restructured hospitals have started quality improvement projects aligned to the guidelines.

More healthcare professionals have also started approaching LCPC to request our help in developing palliative care training

in their areas of expertise. We are also looking at regional expansion as the need for palliative care training is great in our neighbouring countries. The hallmark of LCPC courses is the consistent use of blended learning to maximise learning for busy healthcare professionals unable to take many days off to attend face-to-face courses. Using online platforms has also allowed us to reach out to learners in the region in the most cost-effective manner. These are exciting times for LCPC.

**How would you describe the synergy between LCPC's research and education arms?**

LCPC Education needs to start developing evidence for our programmes, so that any innovative ideas can be tested in a scientific manner. To do this, our team will work with LCPC's research team to apply research methodology in the evaluation of our programmes.

**How does LCPC work with its partners to ensure that its courses remain relevant and up-to-date?**

We strongly believe in using practising professionals to develop and teach the courses so that the content is relevant, as the trainers are domain experts. The social workers in the workgroup that developed the basic course for social workers were so inspired by the course's success that they went on to develop an advanced course which started this year. Similarly, our pharmacist and therapist courses are developed by practicing professionals working with patients with life-limiting illnesses. In other words, all our courses are "by the professionals for the professionals".

**What are some of the challenges of designing courses for doctors, nurses and allied health professionals?**

Time! It's hard for busy clinicians to find the time to attend courses, so we try

to keep the face-to-face sessions short and rely on online learning to deliver the content. The classroom sessions are meant for knowledge application and clarification of queries. The greatest challenge, however, is the support and guidance learners need after completing our programmes, to apply what they have learnt, which is out of our control as it depends on the demands and learning culture of their specific institutions.

**What are some recent developments in the palliative care landscape that LCPC Education has had to adapt to?**

Singapore's ageing population and the increased demand for palliative care, which exceeds the supply of healthcare professionals trained in it, especially at the generalist level. LCPC Education alone cannot address this, so we will need to partner with various institutions if we are to make an impact. More so now than ever before, there are an increasing number of institutions interested in developing palliative care education, so it's important that we collaborate rather than compete. I also think the idea of education and learning has changed dramatically over the last decade, with the explosion of the Internet and ease of access to unlimited knowledge. We may have to look more at curating relevant and appropriate content rather than creating content, as well as teach critical thinking skills like clinical judgement and decision making. LCPC Education recognises the power of technology and is always exploring how best to harness it for education.

**What are your hopes for LCPC Education's growth and evolution over the next ten years?**

That LCPC Education continues to be open to new ideas, and remains dynamic, collaborative and strategic in how we push the agenda and frontiers of palliative care education, such that we are seen as leaders in Singapore and the wider region. I anticipate that within the next ten years, we will tap into technology much more, develop new programmes or ways of delivery, embed more research into our work and reach out to the region.

“LCPC’s focus in palliative care education and training ensures that our healthcare system continues to build capability and capacity for the current and future needs of Singaporeans.”

ASSOCIATE PROFESSOR  
LITA CHEW

Head of Department,  
Pharmacy,  
National Cancer Centre Singapore





# GOING BY *The Book*

**Dr Alethea Yee**  
Director of Education



The SG Pall eBook arose from a chance encounter between Dr Mervyn Koh, Head of Department of Palliative Medicine (TTSH) and myself in 2014, when I congratulated him on the publication of the TTSH Handbook of Palliative Medicine. He revealed then that TTSH were hoping to develop an app for their handbook, as they envisaged that people would rather refer to their mobiles for information than an actual book. However, they lacked the funds to do so.

That was when an idea crossed my mind – what if LCPC funds the development of a mobile-friendly website with basic palliative care knowledge, one that is suitable for the Asian context and targeted at generalists, which is in line with the Centre’s mission? But there was a sticking point. For it to be accepted as credible by the wider palliative care community, it must be seen as developed by the community rather than by LCPC. Hence I proposed to Dr Koh to gather champions from different institutions to form a workgroup to develop the content, whereas LCPC would fund it and provide administrative and operational support. At the same time, LCPC obtained an endorsement from the Chapter of Palliative Medicine to embark on this project.

Dr Koh went on to chair a fantastic group of enthusiastic clinicians and over two years, this group met several times to develop what is known today as the SG Pall eBook. This is a mobile website that’s easily accessible for practising healthcare professionals to refer to in any setting, as long as they have a smartphone. The user interface is easy to navigate and includes an opioid conversion calculator, a very useful function in palliative care practice. Since its launch, many healthcare professionals have accessed the eBook. Last year, the Taiwan Hospice Association requested for a Mandarin version of the eBook, and LCPC has since translated it to be available in both Mandarin and English, thus expanding the reach of this valuable tool beyond Singapore.

**I chose to collaborate with LCPC on the SG Pall eBook because I felt it was a worthwhile venture to come together as a fraternity to help make palliative care more accessible to those who need the knowledge most.”**

**Dr Mervyn Koh**

Head of Department,  
Department of Palliative Medicine,  
Tan Tock Seng Hospital

# AN AWARD-WINNING EDUCATIONAL EXPERIENCE



When Ms Tan Yee Pin, Head of Department of Psycho-oncology (NCCS), wistfully mentioned to Dr Alethea Yee in 2013 that she wished there was a Palliative Care Course for Social Workers (PCCSW), she did not anticipate that she would be embarking on a journey with LCPC to start not one, but two such courses (basic and advanced)! It turned out that there was a demand among social workers for training in palliative care, but no formal programmes existed in Singapore at that time.

LCPC decided to fill this gap by encouraging Ms Tan and a group of enthusiastic senior social workers from SGH, NUH, NCCS, Dover Park Hospice and the Children Cancer Foundation to come together to develop an inaugural course in palliative care. With funding and operational support from LCPC, this workgroup spent hours developing the blended curriculum, resulting in a four month part-time basic course. They adopted an academic approach to the design and delivery of the programme, and continuously improved on it after each run. The course has received an overwhelmingly positive reception and to cater to demand, it has now been conducted three times.

A great testimony to the quality and rigour of the PCCSW (Basic) was when it won the Programme Excellence Award at the Academic Medicine Education Institute (AM • EI) Golden Apple Awards in August 2019. The workgroup has since gone on to develop an advanced module for those social workers who are interested to learn more. The success of the PCCSW has led other healthcare professionals, such as pharmacists and therapists, to approach LCPC to help them develop palliative care courses for their disciplines. By 2019, LCPC has succeeded in rolling out courses for these groups as well, thereby transforming the training landscape in palliative care for allied healthcare professionals in Singapore.







Formal Launch of the  
Guidance on Supportive and Comfort Care in Vulnerable Babies 2018



## TAKING BABY STEPS: IN CARING FOR VULNERABLE BABIES

The birth of a baby is often cause for celebration and joy. Unfortunately, not all babies are born healthy and not all will survive their afflictions. Yet advances in medical technology mean that the number of babies born with life-limiting illnesses is likely to increase as we push the bounds of medical technology for neonates. While Singapore excels in the delivery of life-extending treatments for vulnerable babies, we are less skilled in the delivery of neonatal supportive care.



It has been a fantastic journey working together with LCPC to expand education and training in neonatal medicine. I hope that the success of our collaboration will stimulate interest within LCPC to develop more best practice guidelines and education and training resources for children and young adults."

**Dr Vijayendra Ranjan Baral**

Senior Consultant, Department of Neonatal and Developmental Medicine, Singapore General Hospital

In 2015, Dr Vijayendra Raja Baral, a neonatologist from SGH, approached LCPC to support the development of guidelines in this area. Such guidance would be the first of its kind in Singapore, and LCPC decided it was a cause worth funding. What eventually resulted was a LCPC-funded symposium in 2016 of international and local experts in neonatology, medical ethics and palliative care, alongside testimonials from parents of babies born with life-limiting illnesses. Discussions at the symposium concluded with an informal and unanimous declaration of the need for a comprehensive resource for healthcare professionals that would offer guidelines on the practice of neonatal supportive care.

With financial and administrative support from LCPC, a taskforce led by Assoc. Prof. Roy Joseph from the National University Hospital and comprising clinicians from SGH, KKH and HCA Hospice Care was formed in April 2017, with the goal of developing the guidelines within a year. The group studied what was being practiced locally and internationally and reviewed guidelines from around the world. With input from international experts, including Professor Brian Carter (USA) and Senior Nurse Alexandra Mancini (UK), the task was completed in 2018. The guidelines were officially launched in July 2018 with the endorsement of the College of Paediatrics and Child Health, Singapore Chapter of Neonatology and the Perinatal Society of Singapore. This was a truly collaborative effort and one that is going to make a difference in the lives of Singapore's most vulnerable.

## TO LCPC WITH LOVE

LCPC's staff and partners offer hearty congratulations for our first 10 years, and heartfelt wishes for our next 10.

"Thank you, LCPC, for providing the platform, expertise and resources for us to co-create the Palliative Care Course for Social Workers in Singapore."  
– **Mr Andy Sim, Principal Medical Social Worker, Singapore General Hospital**

"10 fruitful years of education and research to ensure the expertise of the pioneers form the basis of good palliative care for many generations after. A progressive milestone to celebrate indeed."  
– **Ms Chee Wai Yee, Senior Director, Montfort Care**

"Thank you for educating and training professionals to continually push the frontiers of palliative care excellence in our region."  
– **Ms Roxanne Foo, Senior Physiotherapist, Dover Park Hospice**

"Congratulations and happy 10<sup>th</sup> Anniversary, LCPC! Your achievements are the result of every individual's combined efforts. We are very privileged to have LCPC as a member since 2009. Let us continue working to increase professional confidence and competence among our healthcare workers in the palliative care sector, and further equip them to support patients and families facing life-threatening illnesses."  
– **Dr Angel Lee, Chairperson, Singapore Hospice Council (2015-2019)**

"Kudos to the entire LCPC team for making a remarkable difference to the lives of many. My best wishes for your continued success and growth."  
– **Ms Janhavi Vaingankar, Deputy Director (Research), Institute of Mental Health**

"Being a part of LCPC and being able to contribute to palliative care education was a pleasure and a privilege. Thinking of the people at DSPC & LCPC always puts a smile on my face! Sending much love across the oceans and always the best to LCPC, where the sum is greater than its parts."  
– **Manisha Mittal, Education Analyst (former), LCPC**

"Happy anniversary LCPC! Thank you for helping to determine ways of better serving the needs of patients and their loved ones."  
– **Dr Kathryn Pollak, Professor in Population Health Sciences, Duke University School of Medicine**

"It has been a pleasure partnering with the LCPC team, who are expert, passionate and committed to working closely with us. We have been much encouraged by LCPC's supportive and collaborative approach. I hope LCPC will continue to deepen its contributions to palliative care research and education."  
– **Ms Choo Shiu Ling, Chief Executive, Assisi Hospice**

"Working with our collaborators has been a truly inspiring journey. Their dedication, enthusiasm & insight have allowed us to attain new heights with our education mission. Thanks to all for the continued support."  
– **Jessica, Huey Khey, Angie, Asyura, Alice & Chieu Lin (LCPC Education)**



# APPENDIX

## EXTERNAL RESEARCH GRANTS AWARDED TO LCPC FACULTY

NO.	YEAR	GRANT AGENCY	PROJECT TITLE	PI	FUNDING (SGD)
1	2011	MOH	National Strategy for Palliative Care	Pang Weng Sun	160,000
2	2011	NMRC	Survey on Preferences for Care at End of Life among Singaporeans	Chetna Malhotra	165,000
3	2013	SMF	Survey on Preferences for Care at End of Life among Cancer Patients in Singapore	Chetna Malhotra	164,783
4	2014	SMF	Knowledge and Preference for Treatment of End Stage Renal Disease Among Elderly Patients and Their Caregivers	Eric Finkelstein	260,480
5	2015	NMRC	The Role of Risk Factors in Influencing End of Life Utilisation and Costs: Evidence from linked Singapore Chinese Cohort Studies	Hai Nguyen; Eric Finkelstein	352,745
6	2015	SMF	Costs and Medical Care of Patients with Advanced Serious Illness in Singapore Study	Eric Finkelstein	749,922
7	2016	Khoo Pilot Award	Pilot Study of the SPARK (Supportive and Palliative Care Review Kit) model of care for advanced cancer patients who have an unplanned admission to Singapore General Hospital	Grace Yang	29,000
8	2016	NCCS	Pilot Trial of the Enhancing Quality of life in Patients with Advanced Lung Cancer	Grace Yang	150,000
9	2016	Duke NUS	Feasibility and Acceptability of A Behavioural Symptom Management Programme for Patients with Advanced Breast Cancer in Singapore and the US	Irene Teo	100,000
10	2016	NMRC	Singapore Cohort of Patients with advanced heart failure	Eric Finkelstein	999,972
11	2017	NMRC	The Feasibility and Acceptability of a Psychosocial Intervention for Advanced Colorectal Cancer Patients	Irene Teo	225,700
12	2017	NMRC	Panel study investigating Status of Cognitively Impaired Elderly in Singapore	Chetna Malhotra	999,400
13	2017	NMRC	Tailoring Health Communication Materials to Improve Decision Making of Elderly ESRD Patients	Eric Finkelstein	209,492
14	2017	SMF	Effectiveness of the Supportive and Palliative Care Review Kit (SPARK) for cancer patients in the acute hospital	Grace Yang	250,000
15	2018	SCS	Renewing Intimacy and Sexuality (RISE): A Pilot Program to Support Marital Intimacy and Sexual Health of Female Cancer Patients in Singapore	Irene Teo	82,250
16	2018	NMRC	Development of a palliative care intervention to support advanced cancer patients and their caregivers	Grace Yang	30,000
17	2018	SCS	Validity and reliability of the integrated palliative care outcome scale	Grace Yang	82,100
18	2018	SingHealth RHS (PULSE)	Healthcare utilisation of metastatic cancer patients	Grace Yang	50,000
19	2018	SMF TFI	Survival Expectations and Hope among Cancer Patients at End-of-Life	Eric Finkelstein	150,928
20	2018	SMF TFI	Adaption and pilot testing of the ENABLE (Educate, Nurture, Advise, Before Life Ends) intervention for advanced cancer patients	Grace Yang	208,800
21	2019	SMF TFI	A comparison of healthcare utilization, costs and the provision of low-value care in patients with and without evidence of cognitive impairment in the last year of life.	Brett Doble	146,335
22	2019	NCCS	Pilot study of the 'Supportive and Palliative Care Review Kit in Locations Everywhere' (SPARKLE) model for lung cancer	Grace Yang	50,000
TOTAL					5,616,907

## INCUBATOR GRANTS AWARDED BY LCPC

NO.	YEAR	PROJECT TITLE	PI	FUNDING (SGD)
1	2014	Impact of ACP on End of Life Care for Patients with Advanced Cancer and Heart Failure	Chetna Malhotra	150,000
2	2014	Communications Quality between Physicians and Cancer Patients in Singapore	Chetna Malhotra	125,000
3	2016	Pilot Study of the SPARK (Supportive and Palliative Care Review Kit) model of care for advanced cancer patients who have an unplanned admission to Singapore General Hospital	Grace Yang	29,000
4	2016	Costs and Medical Care of Patients with Advanced Serious Illness in Singapore	Eric Finkelstein	399,000
5	2016	Development and Validation of a Quality of Life Scale in English and Chinese for Family Caregivers of Patients with Advanced Cancers in Singapore	Cheung Yin Bun (Duke-NUS)	97,500

NO.	YEAR	PROJECT TITLE	PI	FUNDING (SGD)
6	2017	Health Communication and Treatment Choice Among Elderly End Stage Renal Disease (ESRD) Patients	Helena Legido-Quigley (NUS)	47,500
7	2018	Challenges and Unmet Supportive Care Needs of LVAD Patients, LVAD Eligible Patients and their Caregivers	Shirlyn Neo (NCCS)	9,800
8	2018	Humanism Aspirations as a Propeller of Professional Development in Palliative medicine Education	Ong Eng Koon (NCCS)	6,500
9	2019	Development and Validation of a Quality of Life Scale in English and Chinese for Caregivers of People Living with Dementia in Singapore	Cheung Yin Bun (Duke-NUS)	45,500
10	2019	Occupations at End of Life - The Lived Experiences of Terminally Ill Chinese Elderly & their Caregivers in Singapore	Lim Geck Hoon (SIT)	36,280
11	2019	Pilot Study on the Effectiveness, Feasibility and Acceptability of a Communications Training Module for Cardiologists and Cardiac Surgeons to Improve Communication Skills and Comfort with Goals of Care Discussions	Shirlyn Neo (NCCS)	12,000
12	2019	Understanding the Influences of Good Death on Bereavement Coping among Bereaved Family Caregivers in Singapore	Tey Mei Qi (Assisi)	5,600
13	2019	Perinatal Palliative Care Study of Women Treated at KKH	Komal Tewani (KKH)	10,025
14	2019	Neuropalliative service (Neuropall) - a feasibility study	Ang Kexin (NNI)	20,000
TOTAL				993,705

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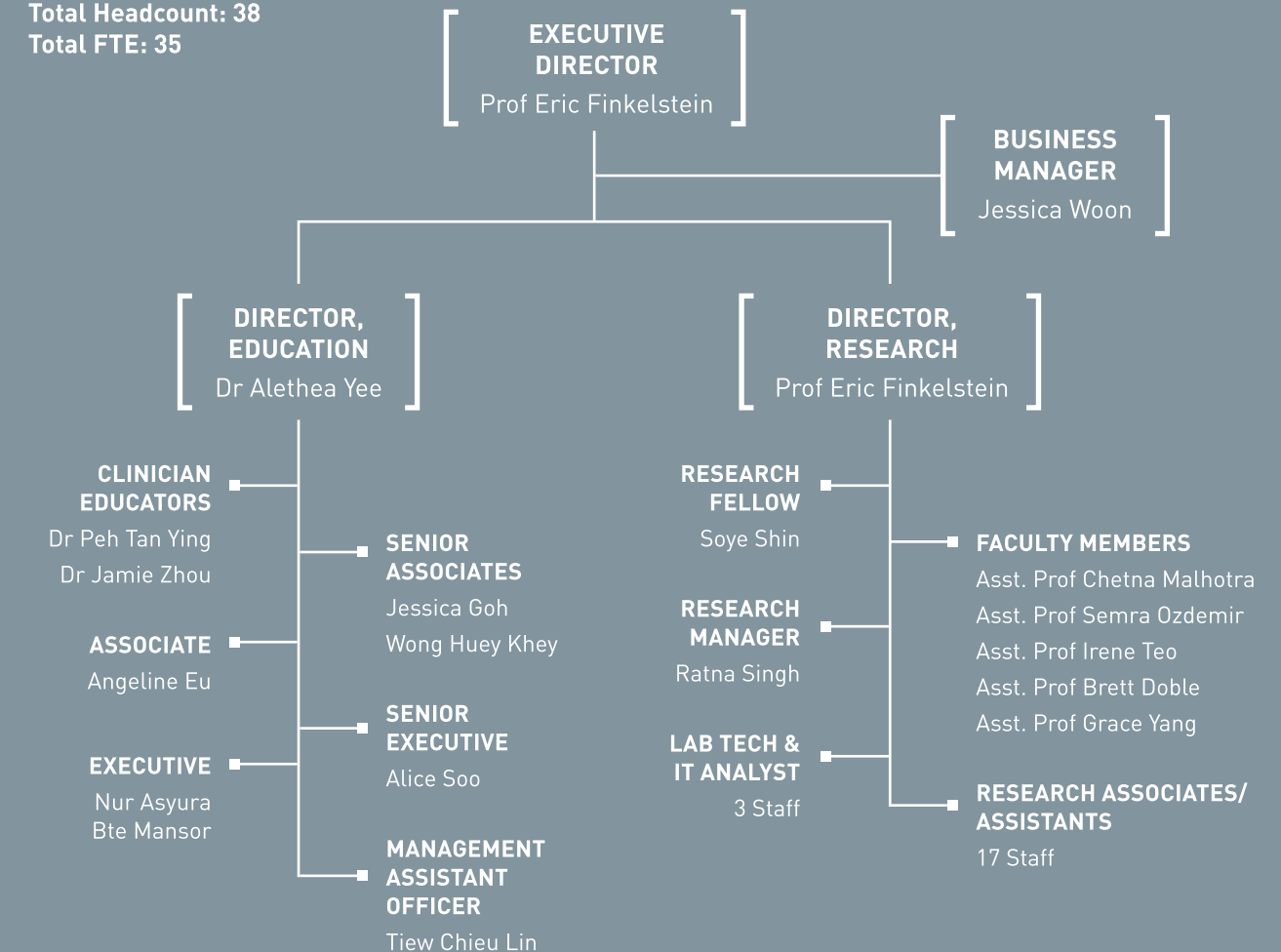
## EDUCATION COURSES DELIVERED

NO.	YEAR	COURSE TITLE	PARTICIPANTS	IN COLLABORATION WITH
1	2009-2013	SHC Post Graduate Course (for Doctors)	203 Doctors	Singapore Hospice Council
2	2014	30 <sup>th</sup> SHC Post Graduate Course (for Doctors)	42 Doctors	Singapore Hospice Council
3	2015	31 <sup>st</sup> SHC Post Graduate Course (for Doctors)	49 Doctors	Singapore Hospice Council
4	2015	Palliative Care Course for Social Workers (Basic)	30 Social Workers	Singapore Association of Social Workers
5	2016	32 <sup>nd</sup> SHC Post Graduate Course (for Doctors)	46 Doctors	Singapore Hospice Council
6	2016	EoL Care training for PeaceHaven Nursing Home	56 participants	PeaceHaven Nursing Home
7	2016	Neonatal Symposium	150 participants	Supported by: - Perinatal Society of Singapore - Singapore Paediatric Society - College of Paediatrics and Child Health - HCA and StarPals - SingHealth Paediatrics Academic Clinical Program
8	2016	Palliative Care Course for Pharmacists (Basic)	175 Pre-registration pharmacists	Pharmaceutical Society of Singapore
9	2016	Palliative Care Course for Social Workers (Basic)	29 Social Workers	Singapore Association of Social Workers
10	2017	33 <sup>rd</sup> LCPC-SHC Post Graduate Course for Doctors	53 Doctors	Singapore Hospice Council
11	2017	Basic Palliative Care for Pharmacists	192 Pre-registration pharmacists	Pharmaceutical Society of Singapore
12	2017	Palliative Care Course for Nurses of PeaceHaven Nursing Home	56 Nurses	Eastern Health Alliance
13	2017	Palliative Care Course for Social Workers	28 Social Workers	Singapore Association of Social Workers
14	2018	34 <sup>th</sup> LCPC-SHC Post Graduate Course for Doctors	34 Doctors	Singapore Hospice Council
15	2018	Palliative Care Course for Community Nurses	47 Nurses	JagaMe (Social Enterprise)
16	2018	Palliative Care Course for Nurses of All Saints Nursing Home	12 Nurses	Regional Health System, Singapore Health Services
17	2018	Palliative Care Course for Nurses of PeaceHaven Nursing Home	56 Nurses	Regional Health System, Singapore Health Services
18	2018	Palliative Care Course for Nurses of PeaceHaven Nursing Home	56 Nurses	Regional Health System, Singapore Health Services
19	2018	Palliative Care Course for Pharmacists (Basic)	192 Pre-registration pharmacists	Pharmaceutical Society of Singapore
20	2018	Palliative Care Course for Pharmacists (Basic)	200 Pre-registration pharmacists	Pharmaceutical Society of Singapore
21	2018	Palliative Care Course for Pharmacists (Advanced)	25 Pharmacists	Pharmaceutical Society of Singapore
22	2018	Palliative Care Course for Social Workers (Basic)	27 Social Workers	Singapore Association of Social Workers
23	2019	35 <sup>th</sup> LCPC-SHC Post Graduate Course for Doctors	55 Doctors	Singapore Hospice Council
24	2019	Palliative Care Course for Community Nurses (2 runs)	50 Community Nurses	SGH Community Nurses, Assisi Hospice, JagaMe
25	2019	Palliative Care Course for Home Care Nurses	26 Nurses	Assisi Hospice
26	2019	Palliative Care Course for Home Nurses	44 Nurses	NTUC Chai Chee Nursing Home, St Andrew's Community Hospital
27	2019	Palliative Care Course for Pharmacists (Basic)	200 Pre-registration pharmacists	Pharmaceutical Society of Singapore
28	2019	Palliative Care Course for Pharmacists (Advanced)	25 Pharmacists	Pharmaceutical Society of Singapore
29	2019	Palliative Care Course for Social Workers (Advanced)	15 Social Workers	Singapore Association of Social Workers
30	2019	Palliative Care Course for Therapists	46 Therapists (Physio, Occupational, and Speech)	Therapist Associations - SAOT, SPA, SALTS



## ORGANISATION CHART

Total Headcount: 38  
Total FTE: 35







LIEN Centre  
for Palliative Care

CELEBRATING

10

YEARS