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## Original Article

## Content analysis of Life Unlocking Card Game to raise death awareness in healthy Thai adults

Tharin Phenwan\*, \*\*, Tanida Apichanakulchai\*\*\*, Ekkapop Sittiwantana\*\*\*

### Abstract

**Introduction:** Advance Care Planning (ACP) is an agreement of preferred care between patients, family, and the health care team should the patient become incapacitated. However, ACP uptake and awareness is still low in Thailand. The Life Unlocking Card Game is an intervention that was conceived to use gamified element to raise ACP awareness. This study aims to assess the feasibility of the Life Unlocking Card Game as a tool to raise death and ACP awareness in Thais.

**Methods:** A retrospective feasibility study using a convenient sampling method. Twenty-seven card game sessions were held during January 2014 and December 2016 with 342 participants. We performed content analysis using an investigator triangulation method.

**Results:** Five themes emerged; 1) Death is closer than I thought, 2) the need to contemplate my own life, 3) learning through others' experiences, 4) spending more time with my loved ones, 5) the importance of Advance Care Planning.

**Conclusion:** The Life Unlocking Card Game proves to be a useful tool to raise death and Advance Care Planning awareness in Thais. Further study is recommended in other groups such as the patients or health care providers.

**Key words:** Advance Care Planning, Gamification, Qualitative research, Palliative care, Thanatology

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## Introduction

Advance Care Planning (ACP) is an agreement of preferred care between patients, family, and the healthcare team should the patient become incapacitated<sup>1</sup>. It covers several aspects of the patient and family's preferences such as cardiopulmonary resuscitation option, parenteral nutrition, place of care, power of attorney, etc., ensuring that patients' autonomy would be respected<sup>2</sup>. Another benefit of ACP is that it also covers other non-medical aspects of the patients such as unresolved family conflict or other unfinished business as well<sup>3</sup>. However, making an ACP or increasing uptake is still a challenge<sup>4</sup>. This may be due to several factors, e.g. healthcare providers do not have enough time nor skills to initiate this topic<sup>5-7</sup> even though the patients need to talk about it<sup>8,9</sup>, or the lack of practical policy implementation<sup>10</sup>.

To tackle this challenge, there have been several interventions to increase ACP awareness and uptake such as a conversation card game<sup>11-13</sup>. The Life Unlocking Card Game is a conversation card game that aims to raise ACP awareness and bridge these gaps. However, since its first launch, there has been no assessment of its practicability to raise ACP yet. Thus, this study aims to analyse the effectiveness of the Life Unlocking Card Game as a tool to raise death and ACP awareness in Thais.

## Method

The retrospective feasibility study was conducted from January 2014 to December 2016, and used advertisement through social media and newsletters to recruit anyone who was interested. Inclusion criteria were participants who were 18 years old or older and could communicate in Thai. Participants would register via an online application form (Google Form). We then used a convenient sampling method to use participants' demographic data and their feedback regarding the card game for the analysis.

### Life Unlocking Card Game

*Gem Pai Khai Cheevitr* (Life Unlocking Card Game) consisted of 45 questions grouped into 3 subcategories; 1) Emotional respite, 2) Death and Dying Issues and 3) ACP. The card game was conceived with the objective to use the gamification element to talk about hard and sensitive topics such as ACP and death and dying issues<sup>14</sup>. It aims to raise the awareness of death and dying issues and the importance ACP. Each session consisted of 4 - 10 players with one facilitator to guide the group. (Figure 1)



Figure 1 *Gem Pai Khai Cheevitr* (Life Unlocking Card Game)

### Reliability, Validity and, generalisibility<sup>15</sup>

After the conception, several pilot games were tested with players from different backgrounds for six months; volunteers, healthcare providers who were actively involved in the palliative care service, and the general population. Questions were revised from the feedback to make them more practical and concise.

### How to play and data collection

Twenty-seven card game sessions were held during January 2014 and December 2016 with 342 participants. Fifteen sessions were held in Bangkok, ten sessions were conducted in three provinces of Southern Thailand, and two sessions in Northeast Thailand. One extra session was conducted for the facilitators of the game. The sessions were conducted in a various setting. For example, in a university, a hospital, a government office building, a cafeteria, or at a house. The whole audit trail of each session is kept online and is accessible by the researcher team. The audit trails are available upon request.

The session started with two warm-up questions to establish rapport between the players; 1) What are your worries about playing this game? 2) What is your expectation from playing this game? After that, players then shuffled the deck, drew the top card, and read the question out loud. Each player then took turns in answering the question. Participants could answer the questions verbally or take notes and read them out as they preferred. They can also

discuss and exchange their experiences during the answering period as well. After everybody took turns in answering the question, another player drew a card, and the cycle went on. The session lasted for 90 to 120 minutes. The game concluded with two final questions; 1) What did you learn from this game? 2) How could this game be improved? Participants were instructed to write down their expectations and preconception before the game and also their post-game feedback. We used their comments and feedback for the content analysis.

### Statistical Analysis

Mean and standard deviation (SD) or median and range were used to describe continuous data. Frequency and percentage were used for categorical data. For the qualitative analysis, we used the investigator triangulation method to increase the rigour of this work and used a content analysis approach to analyse the data<sup>16</sup>. Any discrepancies were discussed between the researchers via meetings before the final analysis.

## Results

Each session comprised of four to ten people. Majority of the participants were female (74.8%) with the age between 18 and 65 years old. We also asked questions regarding the participants' preconception about death, ACP, and the Life Unlocking Card Game as shown in Table 1.

**Table 1** Participants' characteristic and pre-game preconception about the card game

	N (%)
<b>Gender</b>	
Female	256 (74.8)
Male	86 (25.2)
<b>Age</b>	
average (SD)	43.8 (17.6)
<b>When was the last time that you thought about your own death?</b>	<b>269 (100)</b>
Constantly	68 (25.3)
Most of the time	36 (13.4)
Yesterday/Today	85 (31.6)
Less than a year	28 (10.4)
More than one year	36 (13.4)
Never	16 (5.9)
<b>Did you talk about it with anyone?</b>	<b>342 (100)</b>
Family	152 (44.4)
Friends	112 (32.7)
Colleagues	20 (5.8)
Others	4 (1.2)
Cannot remember	19 (5.6)
I keep it to myself	35 (10.2)
<b>What do you relate to when you hear the word "death"? (frequency)</b>	<b>Verbatim quotes</b>
Part of nature (39)	<i>"Ephemeral [life]."</i>
Farewell and loss (87)	<i>"The final goodbye."</i>
The End (74)	<i>"Cease to exist."</i>
Being at peace (88)	<i>"Feeling peaceful and ready."</i>
Preparing oneself (39)	<i>"When, how, and where."</i>
Afterlife (59)	<i>"Hell and heaven."</i>
Family (20)	<i>"Those who are left behind."</i>
Sickness and suffering (73)	<i>"Cancer."</i>
<b>Your reaction when you heard of the "Life Unlocking Card Game" (frequency)</b>	<b>Verbatim quotes</b>
A tool to reflect inner self or meaning of life (173)	<i>"A card game to help reflect my past life while sharing it with others."</i>
It makes me feel curious (99)	<i>"I have no idea but it piques my interest."</i>
Divination tool (35)	<i>"Like a tarot card?"</i>
A tool to help with Advance Care Planning (20)	<i>"To help me prepare myself [of death]"</i>
Something dark and morbid (5)	<i>"Sounds depressing. Like an omen."</i>
Just a card game literally (10)	<i>"Just a card game."</i>

**After the card game**

Five themes emerged regarding what participants learnt from the game; Death is closer than I thought, the need to contemplate my own

life, learning through others' experiences, spending more time with my loved ones, and the importance of ACP (Table 2).

**Table 2** Participants' post-game content analysis

Themes	Verbatim quotes
	<i>"Death is everywhere and could happen to anyone at anytime, so we need to be mindful and ready."</i>
<i>Death is closer than I thought (72)</i>	<i>"Life is fleeting. Ephemeral. And we must do whatever that we need to since we have no idea when it will end."</i>
	<i>"It [death] is in every breath. You either continue breathing [being alive] or you are not [dead]. Why am I not realising this sooner?"</i>
	<i>"Is my life good? Fulfilling? Is there something I should or should not do? I cannot tell."</i>
<i>The need to contemplate my own life (33)</i>	<i>"I must be more willing to listen to my children. A kinder wife, a better daughter, and a fairer boss. I want to be a new me."</i>
	<i>"[what I learnt] death from other people's perspective death in terms of management [action] death and my conscience"</i>
	<i>"Everybody has their past experiences, loss and suffering. It makes me realise that there are several truths in one thing and all of them are not wrong."</i>
<i>Learning through others' experiences (102)</i>	<i>"Two of my friends have totally different points of view about death and Dhamma. And both of them are correct. And I learnt a lot from our discussion."</i>
	<i>"I learnt immensely from those who have more experience in life and loss."</i>

Table 2 Participants' post-game content analysis

Themes	Verbatim quotes
<i>Spending more time with my loved ones (28)</i>	<p><i>"Our time is limited and I should spend it with someone important; my family."</i></p> <p><i>"I will spend more time with my family and ask for forgiveness from my husband whatever that I may have wronged him in the past."</i></p>
<i>The importance of ACP (77)</i>	<p><i>"I need to prepare a lot of things before I die. My funeral, my will, where should my family hold the funeral and I never realised that until now."</i></p> <p><i>"It cannot wait. Who is depending on me now, my family, my will, etc. There are lots of things to be done and I will manage them after this."</i></p>

As for how this game could be improved, 143 participants stated that more time should be allowed when they play the game, 40 needed more players to join the game, 21 needed more rapport between

the players and 25 stated that the game is already good. 290 participants also stated that they wanted to play this game again with their family (278) or friends (12) (Table 3).

Table 3 Post-game feedback

How could this game be improved?	N (%)
	<b>229 (100)</b>
More times allowed	143 (62.4)
More players to join the game	40 (17.5)
More rapport between the players	21 (9.1)
The game is already good	25 (10.9)

## Discussion

ACP is one of the key elements to achieve comprehensive palliative care. To increase the ACP uptake for the patients, there were suggestions for the early initiation of ACP between patients, family members, and the doctor<sup>17,18</sup>. The Life Unlocking Card Game was designed as a tool to make participants more aware of the importance of ACP in a safe and friendly environment. The results showed overwhelmingly positive feedback from participants. They see the card game as a proper medium to talk about death and ACP. By joining the session, they also mentioned the need for a safe environment to talk about their inner concerns such as fear of death or other issues regarding ACP. The findings coincide with other works that by using a gamified element, it is easier for anyone to be more engaged in hard topics, e.g. death and ACP<sup>11-14</sup>. Post-game feedback also showed the participants' eagerness to play this game again with their family and friends, another positive outcome to prove the game's practicability. We aimed to use these findings to improve the card game and use it on another group of participants.

Our work has several limitations. Firstly, we only collected data from healthy volunteers. The feedback regarding this card game may differ in different groups such as palliative care patients or carers. Secondly, since we used an anonymised registration form, several demographic data, e.g. participants' educational level, occupation, underlying diseases were not available. Thirdly, there were some missing data from several questions in the post-game feedback as well. Finally, we asked the participants for the feedback right after the game but did not follow-up whether they did an ACP or if their perception has changed after they played the game after a long-period or not. Collecting more data from different groups such as patients or carers are noteworthy. Plus, according to Prochaska's

Transtheoretical model (TTM), people need a longer time to change their perception and behaviours<sup>19</sup>. Thus, a follow-up of the participants up to six months after they played the game is also recommended.

The Life Unlocking Card Game proved to be a useful tool to raise death and ACP awareness in Thais. The findings showed the need to further improve this card game so that more people would benefit from this innovation. Further study is recommended in other groups such as the patients or health care providers.

## Declarations

## Abbreviations

ACP: Advance Care Planning; Transtheoretical model (TTM)

## Ethical approval

Human Research Ethics Committee of Walailak University approved this study (WUEC-18-023-01). The study was reviewed and exempted by the board of committee.

## Consent for Publication

Not applicable.

## Availability of data and material

Please contact author for data requests.

## Authors' contribution

TP conceived the study, participated in its design, conducted the analysis and coordination. TA and ES conducted the sessions, analysed the data, and revised the manuscript. All authors read and approved the final manuscript.

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## Funding

None.

## Competing interests

The authors declare that they have no competing interests.



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## Appendix

### Life Unlocking Card Game Question List

Category	Questions
Warm-up questions	<ul style="list-style-type: none"> <li>- What are your worries about playing this game?</li> <li>- What is your expectation from this game?</li> </ul>
Emotional respite	<ul style="list-style-type: none"> <li>- What kind of activity do you spend most time on lately?</li> <li>- How much money would you want in your entire life? Why?</li> <li>- What or who is your source of strength?</li> <li>- What or who is your emotional support?</li> <li>- Define the first three words when you heard the word “palliative care”</li> <li>- What do you think happens after death?</li> <li>- Which event always makes you feel pleasant and happy whenever you think of it?</li> <li>- Are there any past events in your life that you wish to do differently?</li> <li>- Design your ideal funeral.</li> <li>- How long will you live? Why do you think that?</li> <li>- Who will you give the usernames/passwords of your online social accounts to (FB, IG, Twitter, etc) when you die? Why?</li> <li>- What is your dream that could <b>never</b> come true?</li> <li>- If you were terminally ill, which celebrities would you want to visit you?</li> <li>- What kind of last meal would you want?</li> <li>- Who would find it very hard to accept and let go if you were dead?</li> <li>- What are the most important things that you want to achieve no matter what before you die?</li> </ul>
Death and Dying issues	<ul style="list-style-type: none"> <li>- Define your “good death?”</li> <li>- Think of someone you haven’t met for more than one year, who do you want to meet before you die?</li> <li>- Have you ever witnessed a life-prolonging treatment such as CPR, intubation? Can you describe your experience?</li> <li>- Who’s dependent on you right now (financially, psychologically) and may have difficulties if you die?</li> <li>- If you were to die tomorrow, how would you manage your financial assets?</li> <li>- If today were your last day, who is the first person you would apologise to? And who is the first person you would express your gratitude to?</li> <li>- What kind of items would you give in your funeral?</li> <li>- If you had 6 months to live, who will you tell the news?</li> <li>- What is your strength to help you achieving a good death? (working as a palliative care provider, already make a living will, etc)</li> <li>- If you were lost in the sea, who will make the decision as to how long and how much money your family would pay to search for you?</li> </ul>

Category	Questions
	<ul style="list-style-type: none"> <li>- If you could manage one thing on your last day, what would that be?</li> <li>- Is your home a good place to die? Why?</li> <li>- Think about someone you love who already passed away, what are your memories of them?</li> <li>- If you were diagnosed with a terminal illness, who would you turn to for advice?</li> <li>- How much money would you spend on your funeral?</li> <li>- How old were you when you witnessed your first death? How was your experience?</li> <li>- When did you realize that eventually, you, too, will die?</li> <li>- What is the most important thing you want to give to others when you die? What is that? Whom will you give that too?</li> <li>- Where do you want to die? Could you describe that?</li> <li>- If you were to sleep tonight and never wake up again, how prepared are you? What makes you feel that way?</li> </ul>
<b>Medical decision making</b>	<ul style="list-style-type: none"> <li>- If you were incapacitated and could not go to a toilet by yourself, who do you think will help you with your daily activities? And who do you think will <b>never</b> ask for their help? Why?</li> <li>- If you were terminally ill e.g. could not communicate and were bedbound, who do you want to be your proxy regarding your treatment?</li> <li>- Who do you want to be with you when you stop breathing? Is there anything you want to say to them?</li> <li>- Will you donate your body as a cadaver? Why or why not?</li> <li>- After you die, how would you want your body prepared?</li> <li>- If you were terminally ill and your heart stopped beating, who would be your proxy regarding your treatment? <b>Is he or she aware of that?</b></li> <li>- If you were terminally ill and need a CPR, do you want the health care team to do that? Why?</li> <li>- If you were terminally ill, what kind of care do you want? (comfort only, symptoms free, etc)</li> <li>- If you know that your loved ones have a terminal illness and may die soon, would you tell them? Why or why not?</li> </ul>

### บทคัดย่อ

การวิเคราะห์เนื้อหาการใช้เกมไพ่ไซชีวิตในการสร้างความตระหนักเรื่องความตายในประเทศไทย

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\*\*\* เครือข่ายพุทธิกา

**บทนำ:** เพื่อประเมินประสิทธิภาพในการใช้เกมไพ่ไซชีวิตในการสร้างความตระหนักเรื่องการวางแผนดูแลล่วงหน้า (Advance Care Planning) ในประเทศไทย

**วิธีการศึกษา:** การศึกษาความเป็นไปได้แบบย้อนหลัง คัดเลือกโดยใช้วิธีการสุ่มตัวอย่างแบบสะดวก 342 คน จากการเล่นเกมไพ่ไซชีวิต 27 ครั้ง ตั้งแต่ มกราคม 2557 ถึง ธันวาคม 2559 วิเคราะห์ข้อมูลเชิงคุณภาพด้วยการวิเคราะห์เนื้อหา ร่วมกับการตรวจสอบข้อมูลแบบสามเส้านักวิจัย

**ผลการศึกษา:** วิเคราะห์ผลได้ 5 รูปแบบ 1) ความตายเป็นสิ่งที่อยู่ใกล้ตัวกว่าที่คิด 2) การคิดทบทวนถึงชีวิตที่ผ่านมา 3) การเรียนรู้ผ่านประสบการณ์ของผู้อื่น 4) การใช้เวลากับคนที่รักให้มากขึ้น 5) ความสำคัญของการทำ ACP

**สรุปผลการศึกษา:** เกมไพ่ไซชีวิตเป็นสื่อที่สามารถสร้างความตระหนักในเรื่องความตายและความสำคัญของ ACP ได้ในกลุ่มผู้เข้าร่วม ควรมีการศึกษาเพิ่มเติมในกลุ่มเป้าหมายอื่น ได้แก่ ผู้ป่วย และบุคลากรทางสุขภาพ

**คำสำคัญ:** การวางแผนการดูแลล่วงหน้า, วิจัยเชิงคุณภาพ, การดูแลแบบประคับประคอง, มรณวิทยา, เกมวิทยา