The Elements of Happiness of Disabled Older Adults in Khon Kaen Smart City, Khon Kaen, Thailand

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Abstract

This research aims to study the elements of happiness of disabled older adults under the Khon Kaen Smart City. The qualitative research method was applied with in-depth interviews and observations to collect data from 29 disabled older adults and their caregivers. The collected data was triangulated prior to content analysis. The results showed that disabled older adults in Khon Kaen Smart City were happy with their ways of life. Happiness could be classified into four categories: 1) Sense of Belonging—the awareness of their purpose of living for their loved ones, with the motivation to live happily in society, (2) Strong Families—older adults receive attention and moral support from the family members, who assist older persons in leading their daily life based on their condition, (3) Subsistence Allowance Welfare—older adults are given income from the government welfare, and some older adults can earn money from jobs, and (4) Social Empowerment—the fact that the older adults feel safe in their lives and assets, have good relationships with people in their community, and with people in the community who regularly visit and talk with them.

Keywords

Disabled older adults; elements of happiness; happiness; Smart City

Introduction

Due to structural changes in demography, Thailand is in an aging society era. The number of adults aged 60 years and over is predicted to increase from 20% in 2021 to 28% in 2030, when Thailand ultimately becomes an "Aged Society" (Office of Civil Service Commission, 2018). It is thus necessary for related departments and divisions to set policies and approaches to promote a good quality of life for older adults so that they will be able to live happily and normally. For example, the National Social and Economic Development Plans should correspond to the human rights concept and the policies of the United Nations and the Second Version of the National Plan on the Elderly (2002–2021). The Second National Plan on the Elderly constituted of five strategies: (1) preparing the citizens to become quality older adults, (2) empowerment of older adults, (3) social safety system for older adults, (4) development for older adults and personnel involved in the care of older adults, and (5) compilation of resources on knowledge and old age knowledge development (National Committee on the Elderly, 2010). In the National 20-year Strategic Plan (2018–2037), the positions were set for mobilizing strategies regarding older adults, including the development and enhancement of human resources, emphasizing older adults qualities by promoting post-retirement employment, social equality strategies, and creating opportunities. The Thai population will be prepared in four dimensions: environment, economic, social, and health. Older adults will be strengthened in terms of the potential to live happily in an aging society (Office of the National Economic and Social Development Board, 2018).

As generally known, the more people age, the more risks of illness, disability, and infirmity they face. The Ministry of Social Development and Human Security (2016) reported that disabled people in Thailand accounted for approximately 3.7 million, with 20.6% of the total population being older adults. That is 762,200 older persons. Of all disabled persons, physical disabilities were mainly found, and secondly were communicating disabilities or hearing and visibility impairment. In that order, 30.8% of causes of disabilities were from illness and diseases such as coronary stenosis, spinal inflammation, hypertension, diabetes, infection, and epilepsy. Most older adults with disabilities are categorized as bedridden patients or people with dependent conditions (National Statistics Bureau & UNICEF, 2017).

Disabled older adults had more limitations in doing daily routines or participating in social activities or associations than other older persons. Their internal capital partly leads to their fragility, especially in economic capital. If an older adult lives in a low-income family, they may lack the chance to develop the potential and restore to normality that their disability stage. They also need equal opportunity for access to education, leading to unemployment and uncertainty about life. Suppose the environment and public services (the physical capital, e.g., settlement, transportation services, official places, tourism places, and valuable facilitating technologies) do not facilitate the living of disabled older adults, then, in that case, they cannot have access to these services.

Similarly, in terms of social capital, disabled older adults frequently face double standards with treatments and are neglected by society and confined at home. So, they have limited access to news and knowledge, social activities, and policy setting (National Committee for Empowerment of Persons with Disabilities, 2017). The restriction of such capital of disabled older adults impacts personal value and conduct toward negative attitudes is harmful to their family, community, and society.

As far as the population is concerned, with more than 1.8 million people, Khon Kaen ranks as the fourth most populated province in Thailand (Bureau of Registration Administration, 2020). The population growth of Khon Kaen is just over 2% annually. Older adults account for 15.5% of the total population (279,606 people). Of this population, 6.6% or 18,316 receive subsistence allowance welfare. It was noted that as many as 10,856 older adults in Khon Kaen registered as disabled persons at the Office of Provincial Social Development and Human Security to receive different rights and benefits according to the Act of Empowerment of Persons with Disabilities and the Act of Disabled People Rehabilitation (Khon Kaen Statistics Office, 2016). Being in the center of the Northeast, Khon Kaen has become the urban economic, environmental, educational, mobility, and medical development hub (Khon Kaen Municipality, 2017). The province, therefore, has been authorized to carry out the "Smart City" project (Plan 2016–2020) under the National Economic Propulsion policy (Thailand 4.0).

The Smart City project was placed as a national agendum, incorporating the following six aspects of development in infrastructures and technologies that will meet the international standards, that is: (1) Smart Governance—a municipality that is the intelligent use of ICT to towards good governance and transparent organizational management with efficient association with the economic sector for efficient and lively services; (2) Smart Environment—a municipality that conserves the natural resources and environment, and reduces energy consumption, uses energy efficiently and monitoring pollution; (3) Smart Economy—a municipality with a creative economy vitality and planning for facilitates businesses, creates new entrepreneurships, product and innovations in the digital age; (4) Smart Mobility—a municipality with a mass transit system where public transportation is suitable, efficient, and secure, with a national accessibility; (5) Smart Living—a municipality where the social security of life and safety to live in, with complete housing quality, educational, healthcare services and ICT infrastructure, including, Khon Kaen City Project that installation the CCTV over 1,000 points around city; and (6) Smart People—a municipality where citizens are social and cultural plurality conscious and equal; a city with education system and facilities available for the disabled, the vulnerable persons, and older adults, and a city that creativity for people's involvement (Wongthanavasu et al., 2019).

These developments will reflect that disabled older adults in Khon Kaen can have full access to their rights, can live freely, happily, and sustainably in society with others. Therefore, the researcher was interested in studying the subsistence of disabled older adults in Khon Kaen that would reflect the elements of happiness in their lives under the development of Khon Kaen into a Smart City.

The outcomes of this study would benefit the government organizations and other related sectors involved in the aging society situation where disabled older adults have different characteristics, namely, age, gender, ethnicity, education, income, health, and residential location. The outcomes would lead to recommendations for policy, developmental projects, and problem solutions appropriate for disabled older adults with various basic needs and resources, ultimately leading to happy living.

Concept of happiness of disabled older adults

The "happiness" concept emerged from Aristotle (350 B.C.E.), a Western philosopher, who believed that happiness generates the ultimate goodness, along with intellect, knowledge, and virtue. Happiness means "existing," good movements, and self-sufficiency, as these are the

greatest goals of someone's life (Reece, 2019). Recently, the happiness concept was internationalized and categorized as belonging to the social population. Economists use the idea of happiness in their studies of consumer groups, believing that an individual is attempting to seek fulfillment or satisfaction and avoid any action that leads to pain or self-dissatisfaction. Consequently, "advantage" is a keyword used with the concept of happiness (Bennett, 2010; Mill, 1957), and together means something that leads to goodness, benefits, satisfaction, and contentment, including guard against or escapade of the feeling of sorrowfulness, disturbance, agony, and unhappiness. According to the idea of advantage, "happiness" is the acceptance of activities that bring happiness while those that do not bring happiness are rejected (Stokes, 2012).

Meanwhile, Eastern Buddhists see the importance of happiness by connecting it with the Buddhist concept that all humans want to be happy. Happiness is physical well-being and vital to attitude and impacts the means of living. The brain can control the nervous system well with happiness, and work efficiency increases (Office of Health Promotion Foundation, 2009). The concept of Gross National Happiness (GNH) leads to social happiness, and toward a comprehensive approach to development. Bhutan is the first government to use the idea of happiness to measure the collective happiness and well-being of the country's population. Bhutan focuses on the happiness of the people in the country so that they can work to their maximum capacity.

Happiness can be measured by objective and subjective (survey-approach) indicators. Objective collection with observable measurement tools, and the outcomes can be identically observed, no matter who is the observer. For instance, concrete happiness is measured using brainwave emotion detection frequency and heart rate. In contrast, the subjective method measures happiness according to personal valuing, such as personal feelings, self-awareness, or self-satisfaction. On the whole, academicians call this measurement a fundamental human goal or Global Self-report of one's happiness and life satisfaction and should take a holistic view towards notions of progress and give equality of life (Kittipraphat et al., 2010; Tobgay et al., 2011).

Academicians from various disciplines have seen the importance of measuring potentiality or capabilities in livelihood and realized that poverty is not a barrier to well-being. If a person can adjust to poverty and match ambition to their actual situation, they can live happily (Kittisuksathit et al., 2013). This assumption agrees with the European Union (EU) that sees the significance of society and culture. The EU applied the Social Quality Concept that makes a point of socio-economic, preservation, and promotion of cultural and community development to add to the well-being and potentialities of people in the community through support by neighborhood members. This agreement enables communities and people to access all necessary resources and the environment (Kusago, 2008).

Consequently, it is inferred that happiness was obtained from a theological basis and has extended into philosophy, sciences, social science, and economics, which contain certain similarities to create and develop happiness for society. The concept of happiness is interesting in the academic circle. Presently, academicians see the importance of measuring happiness from the informants' viewpoints rather than the perspectives of the researchers. Therefore, the idea of happiness covers different domains, including ecological, psychological, cultural diversity and resilience, living standards, community vitality, health, time use, and education. The concept helps enhance the happiness of the population in the country, which leads to continuous sustainable development.

Research conducted on the happiness of older adults in the Northeast of Thailand by Ayuwat et al. (2019), found that older adults happiness is perceived from four dimensions: (1) healthiness—older adults who are in good health can take care of themselves, control complications, and can help out with their housework; (2) security—older adults secure in terms of occupation and are financially efficient, earn income from various sources including their work, the welfare elder allowances, and money from their family members; (3) powerful family—the relatives or families take care of older adults with an order to follow up and obey, give moral support and assist the older adults; and (4) social empowerment—older adults feel secure in life and have a convenient arrangement, and participate in any social activities enhancing the value of the older adults.

When the levels of happiness of older adults were considered, the study found that most older adults' overall level of happiness in the Northeast was high (52.8%). In contrast, older adults' medium and low happiness levels were 36.7% and 10.5%, respectively. Ayuwat et al. (2019) noticed that the overall happiness of older adults in the urban and rural areas was at a relative proportion, i.e., 51.5% and 53.4% of older adults had a high level of happiness, respectively. When categorized by the four dimensions, and from the average per total score, the result found that 81.4% of older adults were happiest from having powerful families, while 79.4%, 74.4%, and 71.6% of older adults were happiest from social empowerment, healthiness, and security of life, respectively. So, the happiness of older adults in terms of healthiness and security scored was lower than the overall happiness of older adults.

A study investigating the factors affecting the happiness of disabled older adults, based on microdata in Udon Thani, Thailand, found that 246 homebound and bedbound older adult's happiness increases with (1) household income, (2) level of health status of the respondent measured by the Barthel Index for Activities of Daily Living (ADL), and (3) satisfaction with the long-term care program or home visits implemented by the government, whereas happiness decreases with living alone (Suriyanrattakorn, 2019).

However, this study on the vulnerable population in Thailand analyzed the population in three groups: (1) people on the edge of society who are obstructed from society or could be marked or treated with double standards by society, such as poverty-stricken people, homeless, ethnic groups, transnational laborers, orphans, LGBTQ+ people, prostitutes, drug addicts, ex-prisoners, etc.; (2) people who need health care, but lack the right in respect of health or no health security, and have limited access to primary health care services, like people living in rural or remote areas; and (3) people at risk of being neglected or maltreated if not receiving long-term health care, e.g., older adults, bodily disabled persons, psychologically disabled individuals, nursing home patients, bedridden patients, etc.

From a review of literature from abroad and a synthesis of the cases in Thailand, it was found that there are many studies conducted on the vulnerable groups mentioned above. Yet, there have been a limited number of studies on older adults with disabilities, who can also be classified as a vulnerable group in at least 2 out of 3 of the categories mentioned earlier. In other words, studies were separately performed on older adults and disabled people. The researcher, therefore, became interested in studying the elements of happiness building for the lives of disabled older adults under the development of the city according to the Smart City policy of Khon Kaen.

Research methodology

This study was based on qualitative research conducted to obtain information on the conditions of disabled older adults and the elements behind their happiness in Khon Kaen Smart City. In-depth and group interviews were performed using in-depth and semi-structured interviewing guidelines and observation for complete, accurate, and reliable results according to the study's objectives (Podhisita, 2005). The data was collected from two groups of informants: (1) 19 key informants, i.e., disabled older adults with different characteristics that were based on the types of disabilities, including eight people with movement disabilities, six people with hearing or communication impairments, two people with physical disabilities, three multi-handicapped people, and (2) 10 caregivers, who were identified as caregivers of disabled older persons, who tended to an older adult and could be the father, mother, child, husband, wife, relative, or a volunteer from the office of social development and human security, or any person who provides care to disabled older adults. As advised by a village health volunteer, selecting the target group with the snowball sampling technique started from disabled older adults. Before conducting the interviews, the researcher explained the objectives and asked for consent from disabled older adults and caregivers. The data was triangulated by considering the data sources, time, and places to determine the similarities and differences of the data until all of the data were consistent (Chantawanich, 2011).

This study used a human research ethics framework, which defined the roles and duties of the researcher toward informants and project volunteers. Before data collection, the present research received human research ethics certification from the Center for Ethics in Human Research, Khon Kaen University (IRB No. HE633033). The researcher applied a strict human research ethics framework to every step of data collection, protecting the privacy and rights of informants and guaranteeing their safety during their participation in this project. In addition, content analysis and descriptive analysis were performed (Miles & Huberman, 1994).

Results of the study

Disabled older adults in Khon Kaen Smart City

The population of Khon Kaen is just over 1.8 million, with a population growth rate of 2.09% per year. Khon Kaen ranks fourth in the country in terms of population size. The number of older adults in Khon Kaen increased from 12.8% of the total population in 2013 to 15.9% in 2019, meaning Khon Kaen is entering an aging society. It is anticipated that in 2030, the older population in Khon Kaen will be 30% (Khon Kaen Municipality, 2019). From the report of Thai older adults, older persons might be categorized as a vulnerable group. At present, the number of older people who live alone or live with other older adults has increased, especially those who are categorized under the dependent condition or those with disabilities who are predicted to increase in numbers in the next 20 years. Presently, the number of older adults receiving a subsistence allowance accounts for 18,316 persons within Khon Kaen province. However, only 1,058 older adults are registered as disabled persons in the Khon Kaen municipal areas (Khon Kaen Statistics Office, 2016).

The vulnerability of older adults with disabilities can be divided into two categories. The first category are those who became disabled before being old, with most cases from accidents that led to physical abnormalities, such as falling in the bathroom, falling from a motorcycle or a bicycle, falling from a high place while working, etc., as one disabled older adult said,

> "*...I fell over 30 years ago, twisting my waist. The doctor said it couldn't return to normal. At first, I couldn't walk at all. Then I took herbal medicine and was able to walk, but with a walking stick...*"
>
> (An older female with movement disability, aged 83 years).

Another disabled older adult, likewise, reported:

> "*…It happened when I was about three years old. It wasn't from birth. When I was a child, I was naughty. I jumped into the water, and the water got into my ear. It was swollen with pus. My mother said something came out with the pus. They said it was the eardrum… I could not hear. Before that, I was normal. After that day, I can hear with one ear. Now, it's still the same. I'm used to it. But if I close or sleep on the normal ear, I cannot hear at all. If anyone walks in, I won't realize. No matter how loud someone calls, I can't hear it. If I sit with friends, I have to lean on one side to hear them.*"
>
> (An older female with hearing or communicating impairment, aged 68 years).

The second category of vulnerability in older adults is those with threatening illnesses and diseases, making them live with disabilities. These diseases include hypertension, ischemic stroke, spondylitis, infection, diabetes, and epilepsy. Most are categorized as bedridden with a dependent condition. One caregiver of a disabled older adult said,

> "*Before being ill (at the age of 86 years old), he had hypertension and diabetes. Later the blood pressure increased, and so he fell, fracturing his head. He was hospitalized then and had the wound stitched. He also had prostate surgery. At the beginning, he was not bedridden. He was able to walk with a stick. One year after that, he became bedridden and could not move. It did not have a weak muscle. He had some energy but was not able to do it. The brain does not work. He also has Parkinson's. Now, he doesn't even open his eyes …. Some parts of the brain had fluid… He received an operation to drain water…at about 500 cc in the first week. Now, the doctor still detects fluid but would not do anything because it does not have any effect on good nerves, so they keep it. But everything continues to drop down with his age.*"
>
> (A caregiver of a disabled older male patient with a physical disability, aged 91 years).

According to the announcement of the Ministry of Social Development and Human Security on the Types and Principles for Disabilities (2nd Issue), the seven categories of disability are (1) mobility disabled, (2) hearing impaired, (3) visually impaired, (4) physically impaired, (5) psychologic disorders, (6) autism, and (7) learning problems (Ministry of Social Development and Human Security, 2016). It was found that from 1,058 cases registered as a disabled person in Khon Kaen municipal areas (Khon Kaen Municipality, 2019), older adults with physical or movement disabilities from deficiencies or loss of normal function of limbs including hands, feet, arms, or legs accounted for the highest number (53% or 555 cases). These disabilities could be from paralysis, limb weakness, or a chronic disease that has impacted the functions

of hands, feet, arms, or legs. In turn, older adults have had to depend on prosthetics for movement, and some older adults are bedridden.

The second-highest number was 30.2% of older adults with hearing or communicating impairment. The most frequent cause for hearing loss of older adults worldwide is presbycusis or age-related hearing loss (AHL). The primary symptom of AHL is the gradual loss of hearing of both ears equally (Nelson & Hinojosa, 2006). However, it cannot be concluded that this disability is from aging. Other causes should also be analyzed, such as too much earwax or compressed earwax.

The next group was disabled older adults with visibility impairment, blindness, or blurred vision. Some issues result from diabetes or diabetic retinopathy, which causes pain in the eyes, glaucoma, or blurred eyes. After an extended period, the pressure may lead to optic atrophy and finally blindness. Older adults with psychological or behavioral impairment are the next group. Most of the symptoms arise from implications from dementia or Alzheimer's, where there is a defect on a particular part of the brain, impairing the function of the brain and the body, and requires detailed diagnosis before being approved of the rights for the disabled. These two groups, dementia or Alzheimer's, account for 9.0% and 5.6%, respectively. It was noted that in Khon Kaen municipal areas, older adults with psychological impairment have learning and autistic disabilities as well, at 2.3% and 0.3%, respectively.

In general, the disabled group with the previous symptoms comprised older adults cared for by caregivers and their families. In this research, a group of older adults with early disabilities was found. This group has not registered as disabled, as one said,

> *"...I haven't registered as disabled yet. It is aging, for I'm already 92 years. The only congenital disease is hypertension. And I don't hear well; my eyes are not good. I cannot tell who it is, beautiful or not. If someone walks in, I can only grasp the shadow. If the person doesn't come closer, I don't know who it is. But my memory still works. I used to call friends on the phone. But now, I can't see well. I live by myself. The Village Health Volunteer head comes regularly, bringing food. She also brings me the medicine for hypertension every month."*
>
> (An older female with multiple disabilities, aged 92 years).

This older person was also categorized with hearing and communicating impairment and visibility impairment. Multi-handicapped older adults have tended to increase in society today.

Elements of happiness of disabled older adults in Khon Kaen Smart City

According to the policy for older adults of Khon Kaen Smart City, four elements demonstrate good conditions of the family and the happiness with the ways of living, namely:

Sense of belonging: the results of all actions come from the heart. It is the feeling and awareness of disabled older adults of their importance to the family, community, and society, and it raises the conscience of who they are living for, of the freedom based on their power and duties, and of the motivation to live happily in society by accepting their deficiencies.

A disabled older person said,

> *"I don't have as good a life as others. I can only think of sufficiency. It is sufficient. I'm old. I won't exert myself on anything. I try to be useful to be happy."*
>
> (An older female with hearing impairment, aged 68 years).

The fact that disabled older adults have a sense of belonging and participate in any family and community activity is also included in this category, such as their connection to the family members, the house, and the caregiver.

One disabled older adult said,

> *"If you talk about happiness, I want to say something about praying. Praying makes us feel good, having no stress, and brings about good emotion… Now, I don't think about anything in my life. I eat and sleep, stay at home. I get to sleep easily."*
>
> (An older female with movement disability, aged 83 years).

Nevertheless, the caregivers who take care of older adults with movement disabilities or bedridden older adults have to motivate themselves to stimulate disabled older adults to go on living, as a caregiver said:

> *"...For all caregivers, I'd like to say you must find value in yourself and be proud of what you are doing, and the older adults must also be proud of you. We must build self-motivation. Try to think that there are ways for us. If it is too stressful, I take the sleeping pill. Now, I must try to have enough rest and sleep. I must remove other matters from my mind. I don't try to think I have to hang out, to see movies. No, just take enough rest and do not give up. If we give up, what will the older adults feel? We can't be discouraged."*
>
> (A caregiver of an older male with a physical disability, aged 91 years).

Strong Families: disabled older adults who receive care from the family members, which can be seen from good interactions between the family members, talking together, and helping one another so that older adults can live their daily lives based on their condition. Some families take out disabled older adults, making them relaxed and less stressed. As one respondent said,

> *"…Usually, there is my grandchild who joins me in offering food to the monk in the morning. I'm happy with my grandchild. Dining together cheers me up. Now, if I can walk 90% or more, I can work. But as it is, I think it is better as it is, for there's motivation. Both of us have no tension. When I quit the job, I was depressed, for I didn't work. Seeing the others working makes me want to work too. Well, I have to wait and see. The appointment is in August. They will fix my ear. If it becomes normal, I'm going to work."*
>
> (A multi-handicapped older male, aged 92 years).

This case demonstrates that having family members living together is another element that brings happiness to a disabled older adult. Moreover, if older adults have higher self-esteem, expressing hope to take their role to help the family means they build more happiness. Nevertheless, not all families have children or grandchildren living with them. Many children go away to work in other provinces and return only during the long holidays. In such cases, disabled older adults are contacted on the phone when asked how they are doing and advised how to take care of their health. The children also send food or consumer goods and some

money to the older adults. Whenever older adults chat with their children, they feel happy and relieved from worries and missing their children. They also perceive the love and care the children have for them and realize that they are not neglected. As one older adult said,

> *"…My daughter told me, and my doctor also told me to exercise. I've tried. I exercise a lot but still cannot walk well. I take care of myself, for my daughter is working. I don't want her to come and take care of me. She is working far away. The other child lives close by, but he is very busy. My daughter once got someone to help me exercise. The hiring was 200 baht an hour. I said that was expensive and I could do it myself. At first, it was so hard that I could not move. But gradually, it became better. I must not give up. My children always cheer me up. Once my daughter, who is a teacher, came with some friends, her director, and pupils to visit me. They all cheered me up. The doctor said I'm well-motivated, nothing to worry about."*

(A multi-handicapped older female, 70 years).

Subsistence Allowance Welfare: The Act of Empowerment of Persons with Disabilities, 2017 (Royal Thai Government Gazette, 2007) and Rehabilitation of Persons with Disabilities Act 1991 (Royal Thai Government Gazette, 1991) stipulated that all disabled persons are to receive fundamental rights that cover their ways of living from birth until death. For disabled older adults who want to have access to the rights and the benefits according to Section 20 of the Acts, they have to register and already possess a disabled identification card to receive the subsistence allowance in the amount of 800 baht (US$24.30) per month, in addition to the subsistence allowance for older adults at 600–1,000 baht (US$18.20–30.40) monthly. Therefore, disabled older adults earn 1,400–1,800 baht (US$42.50–54.60) per month that can be used in their daily lives without having to trouble their children.

One older adult said,

> *"...It is just enough. The government helps a lot. I can live on it, for I don't have any subsistent land. It is the government that helps me to have food daily. I don't have anything to spend on."*

(An older female with hearing impairment, aged 68 years).

Disabled older adults, furthermore, are entitled to ask for other rights under the Act of Empowerment of Persons with Disabilities, 2017, for example, the medical rehabilitation service (including 26 items), prosthetics, orthotics, other disability supplementary tools or media, and facilitating utilities during traveling, public transportation, information and news services, guiding-animal service for the disabled. Besides, disabled older adults are entitled to the welfare provided by the state, the community, and provider organizations. Some older persons receive remittance from their children who work in other areas. All contribute to the disabled older adult's happy living until they can share what they have with others.

The following disabled older person said,

> *"I receive 1,800 baht from the disabled card. I use it only when I go to the hospital. I use the bamboo stick when I walk. I don't want to use the walking cane they gave me, for I'm afraid it will be out of order too soon. For the medical rights, I use my universal gold card. So I don't have to pay anything at all. The medicine is free. All are free: eye drops, hypertension, and diabetes drugs that I have to take regularly. I don't have to use much money."*

(An older female with a physical disability, aged 93 years).

Likewise, another older adult said,

> *"I just eat a little. I don't use money. Money comes from various sources, the elderly allowance, from my daughter, which I deposit in the bank. I pay for the village funeral group 280 baht a month. There is the elderly funeral group and the railway funeral group (I used to work as the railway officer). The money received is spent for electricity and tap water bill and the funeral groups that amount to a thousand baht. Well, I can live on. I'm not deserted. Here I sit and crawl in and out. My grandchild will arrive soon, bringing me some ice."*

(A multi-handicapped older female, aged 92 years).

Social Empowerment: an element behind happiness, reflected in the fact that disabled older adults feel safe in their lives and have good relationships with people in the community. People in their community regularly visit them and talk to them. They also receive care from community leaders, village health volunteers (VHV), and the community health provider, who regularly stop by to see how they are going. Some go to take the regular medication for them or do the errands. As one multi-handicapped older informant said,

> *"...Apart from weak muscles, there is nothing (disease) else. Yesterday the VHV came, measuring my blood pressure. It was normal. She is worried about me, for my child is far away. But my child sends me vitamin pills. I always take medicine. The VHV doesn't let me stop taking medicine."*

(An older female, aged 92 years).

Another older adult with a physical disability also said,

> *"...The VHV managed it for me* [disabled card]. *She regularly visits me, as I'm a patient. At first, I had to adjust myself a lot. I'd never been sick before. I'd never been hospitalized. But this time, I feel so depressed that I don't want to live. I told the nurse I didn't want to stay on…But then I changed my mind; I just let the doctor treat me until I will be better. The doctor doesn't want to discharge me until I'm well."*

(A older disabled male, 70 years).

The interviews above reflect that the medical personnel, including doctors, nurses, and public health officers, motivate and give disabled older adults moral support, especially older adults who began to develop disabilities in old age and had to understand themselves so that they could self-adjust their physical condition is deteriorating.

Discussion and recommendations

The four elements of happiness, namely, Sense of belonging, Strong families, Subsistence Allowance Welfare, and Social Empowerment, have been confirmed by the officers dealing with the promotion of and service for disabled older adults in Khon Kaen Smart City. The policy to build happiness for disabled older adults should be put into effect by the Government to secure the rights of disabled older adults. At the same time, disabled older adults should have a venue or be provided with a chance to express their opinions. Disabled older adults should be both the receiver (of assistance and support for their living) and the giver by carrying out activities, having a sense of belonging, or taking a role in governing or developing the community. These notions are consistent with Terranco (2021), who found that

higher material and social deprivation are associated with greater stress levels and inferior quality of life. The effect of social deprivation tends to be stronger than that of material deprivation, and this result seems to be valid in all countries considered. However, their intensity varies significantly between them.

From this research, the recommendations have been summarized related to the policy for the development and promotion of happiness for disabled older adults in Khon Kaen Smart City as follows: (1) promote the ways of living to create happiness for disabled older adults through the sense of belonging, not letting them feel discriminated against or feel that they are "othered" in society, for example, by allowing them to voice their opinion or take a role in managing the resources of the family, community, or society; (2) setting the welfare for disabled older adults by adding other happiness-building activities, for example, trips, merit-making tours, or promoting entertaining activities, which can also be linked to the Smart City project; (3) as many disabled older adults persons who live alone or live with their spouse, who may be sick or become disabled, may feel lonely. There should be a center that provides services to older adults, where they could be trained in some skills that enable them to use the technologies that help them live their lives more happily. This includes social media online communications that allow them to contact family members or other social groups; and (4) promoting social empowerment for their living. This should be a norm that all can use to prevent alienation between the disabled and those who are normal.

The purpose of the Smart City is to improve the quality of life of people, especially vulnerable populations like disabled older adults, and to develop the city with a Universal Design concept in mind, making Khon Kaen usable by everyone. Thus, the government policies should support the inclusive Smart City implementation of Smart City ideas addressing the needs of these groups (Wang et al., 2021). Smart makes a city more able for disabled older adults and people on the edges of society, agile to move from stresses level, quickly adapting to change and live on through an appropriate way of life for their situation.

There were some limitations in this study. First, direct communication with respondents who were older people with disabilities was difficult. The researchers had to rely on indirect communication with their caregivers or family members, which sometimes made it challenging to obtain the actual messages from the respondents who were older adults with disabilities. A recommendation for future research is to require more triangulation methods from multiple sources by interviewing multiple people involved with older adults with disabilities or family members until the researchers can establish a good rapport with respondents to obtain more accurate and truthful responses from older adults with disabilities and their caregivers.

Moreover, future studies could use small focus groups or hold a social forum in the annual meeting of persons with disabilities association to obtain suggestions directly from them. By doing so, the messages from persons with disabilities of all kinds could be heard directly. They could be used as suggestions for policymaking to improve the betterment of persons with disabilities' livelihoods and happiness. Therefore, future research should aim to carry out the policy helping persons with disabilities of all ages and develop innovation to enhance happiness for older adults with disabilities.

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References

Ayuwat, D., Hong-ngam, J., Saranrittichai, K., Chumnanmak, R., Narongchai, W., & Auraiampai. N. (2019). ความสุขในชีวิตของผู้สูงอายุ ภาคตะวันออกเฉียงเหนือ [Life happiness of elderly in Northeast]. *Journal of Language, Religion and Culture, 8*(1), 136–155. https://so03.tci-thaijo.org/index.php/gshskku/article/view/174285

Bennett, C. (2010). *What is this thing called ethics?* Routledge.

Bureau of Registration Administration. (2020). *ระบบสถิติทางการทะเบียน: สถิติประชากรและบ้าน – จำนวนประชากรแยกรายอายุ ประจำปี 2562 [Demographic and Housing Statistics – Population Classified by Age 2019].* https://stat.bora.dopa.go.th/new_stat/webPage/statByProvince.php?year=63

Chantawanich, S. (2011). *การวิเคราะห์ข้อมูลในการวิจัยเชิงคุณภาพ (พิมพ์ครั้งที่ 10) [Data analysis in qualitative research* (10th ed.)]. Chulalongkorn University Press.

Khon Kaen Municipality. (2017*). เทศบาลนครขอนแก่น 4.0 Smart City [Khon Kaen Municipality 4.0 Smart City].* Annual Performance Report 2017. Khon Kaen Municipality, Khon Kaen Province. http://www.kkmuni.go.th/pdf-download/portfolio-60.pdf

Khon Kaen Municipality. (2019, December 31). *จำนวนประชากรในเขตเทศบาลนครขอนแก่น จำแนกอายุ ตามกลุ่มช่วง ระหว่างปี พ.ศ. 2561 - พ.ศ. 2562 [Population in Khon Kaen Municipality classified by age and age range from 2018 to 2019].* http://www.kkmuni.go.th/basic-data/population-data/pop-014.pdf

Khon Kaen Statistics Office. (2016, December 31). *ผังสถิติทางการด้านสังคม: ผู้สูงอายุ [Official social statistics chart: The elderly].* (Data set). Khon Kaen Provincial Statistics Office.

Kittipraphat, S., Sawangfa, O., Nitnithiphruet, K., & Liamjaruskul, N. (2010). *พัฒนาการแนวคิดเรื่องความสุขที่เกี่ยวข้องกับประโยชน์สุขและเศรษฐกิจพอเพียง [Conceptual development of happiness from benefits and sufficiency economy].* International Research Associates for Happy Society (IRAH). https://www.happysociety.org/uploads/HsoDownload/36/download_file.pdf

Kittisuksathit, S., Jamjan, C., Tangchollathip, K., & Holamyong, J. (2013). *คุณภาพชีวิต การทำงาน และความสุข [Quality of life, work, and happiness].* Thammada Press. http://www.happinometer.com/web/downloadFileBook/คุณภาพชีวิต%20การทำงาน%20และความสุข.pdf

Kusago, T. (2008). Japan's development: What economic growth, human development, and subjective well-being measures tell us about? *Thammasat Economic Journal, 26*(2), 88–116. https://so05.tci-thaijo.org/index.php/TER/article/view/136454

Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis* (2nd ed). SAGE Publications.

Mill, J. S. (1957). *Utilitarianism* (O. Piest, Ed.). Bobbs-Merrill Co.

Ministry of Social Development and Human Security. (2016, 30 June). *รายงานข้อมูลสถานการณ์ด้านคนพิการในประเทศไทย [Report of Thailand Disabled Situation].* Department of Empowerment of Persons with Disabilities, Ministry of Social Development and Human Security. http://web1.dep.go.th/sites/default/files/files/news/Report_PWDS_JUN2559.pdf

National Committee for Empowerment of Persons with Disabilities. (2017). *แผนพัฒนาคุณภาพชีวิตคนพิการแห่งชาติ ฉบับที่ 5 พ.ศ. 2560 – 2564 [The 5th National Disabled Empowerment Plans 2017–2021].* Department of Empowerment of Persons with Disabilities. http://web1.dep.go.th/sites/default/files/files/law/แผนพัฒนาคุณภาพชิวิตคนพิการแห่งชาติ%20ฉบับท.pdf

National Committee on the Elderly. (2010). *แผนผู้สูงอายุแห่งชาติ ฉบับที่ 2 (พ.ศ. 2545-2564) ฉบับปรับปรุงครั้งที่ 1 พ.ศ. 2552 [The 2nd National Plan on the Elderly (2002–2021) 1st Revision 2009].* National Committee on the

Elderly, Ministry of Social Development and Human Security. https://www.dop.go.th/download/laws/law_th_20152309144546_1.pdf

National Statistics Bureau, & UNICEF. (2017). *การสำรวจความพิการ พ.ศ. 2560 [The 2017 Disability Survey]*. National Statistics Bureau. http://www.nso.go.th/sites/2014en/Pages/Statistical%20Themes/Population-Society/Social%20Security/Disability.aspx

Nelson, E. G., & Hinojosa, R. (2006). Presbycusis: A human temporal bone study of individuals with downward sloping audiometric patterns of hearing loss and review of the literature. *The Laryngoscope, 116*(9 Pt 3 Suppl 112), 1–12. https://doi.org/10.1097/01.mlg.0000236089.44566.62

Office of Civil Service Commission. (2018). ภาครัฐกับการเตรียมความพร้อมเข้าสู่สังคมสูงวัย [The state and preparation for entering the aged society]. *Official Journal, 60*(4), 1–25. https://www.ocsc.go.th/sites/default/files/document/ocsc-2561-y60b04.pdf

Office of Health Promotion Foundation. (2009). *คู่มือมาสร้างองค์กรแห่งความสุขกันเถอะ [Manual for Creating Happiness].* Office of Health Promotion Foundation. http://chsm.nu.ac.th/dhsstartup/wp-content/uploads/2017/07/khuumuuemaasraangngkhkraehngkhwaamsukhkanetha.pdf

Office of National Social and Economic Development Board. (2018). *ยุทธศาสตร์ชาติ พ.ศ. 2561 – 2580 (ฉบับย่อ) [National Strategies 2018 – 2037 (Abridged Edition)].* Office of the Secretary of the National Strategy Council, Office of the National Social and Economic Development Board. https://www.nesdc.go.th/download/document/SAC/NS_SumPlanOct2018.pdf

Podhisita, C. (2005). *ศาสตร์และศิลป์แห่งการวิจัยเชิงคุณภาพ [Science and arts of qualitative research].* Amarin Printing and Publishing.

Reece, B. C. (2019). Happiness According to Aristotle. *CHS Research Bulletin, 7.* http://nrs.harvard.edu/urn-3:hlnc.essay:ReeceB.Happiness_According_to_Aristotle.2019

Royal Thai Government Gazette. (1991, December 17). ออกตามความในพระราชบัญญัติการฟื้นฟูสมรรถภาพคนพิการ พ.ศ. 2534 [Rehabilitation of Persons with Disabilities Act, B. E. 1991]. *Government Gazette, 116*(129A). http://dep.go.th/uploads/Downloads/86ff2d2a-82d4-4680-8a42-00fd291abe9e44.pdf

Royal Thai Government Gazette. (2007, September 18). พระราชบัญญัติส่งเสริมและพัฒนาคุณภาพชีวิตคนพิการ พ.ศ. 2550 [Empowerment of Persons with Disabilities Act, B. E. 2007]. *Government Gazette, 124*(61), 8–27. http://web1.dep.go.th/sites/default/files/files/law/197.pdf

Stokes, P. (2012). *Philosophy 100 essential thinkers: The ideas that have shaped our world*. Arcturus Publishing.

Suriyanrattakorn, S. (2019). Happiness among disabled elderly: A Study based on micro data in Udonthani Thailand. *Thailand and The World Economy, 37*(1), 83–91. https://so05.tci-thaijo.org/index.php/TER/article/view/181256

Terraneo, M. (2021). The effect of material and social deprivation on well-being of elderly in Europe. *International Journal of Health Services, 51*(2), 167–181. https://doi.org/10.1177/0020731420981856

Tobgay, T., Dophu, U., Torres, C. E., & Na-Bangchang, K. (2011). Health and gross national happiness: Review of current status in Bhutan. *Journal of Multidisciplinary Healthcare, 4*, 293–298. https://dx.doi.org/10.2147%2FJMDH.S21095

Wang, C. H., Steinfeld, E., Maisel, J. L., & Kang, B. (2021). Is your Smart City inclusive? Evaluating proposals from the U.S. Department of Transportation's Smart City Challenge. *Sustainable Cities and Society, 74*, Article 103148. https://doi.org/10.1016/j.scs.2021.103148

Wongthanavasu, S., Taweesaengsakulthai, S., Pholsim, S., & Kamnuasilpa, P. (2019). *ขอนแก่นโมเดล [Khon Kaen Model].* Khon Kaen University & Konrad-Adenauer-Stiftung. https://www.kas.de/documents/274654/4437066/Publication+-+COLA+-+Khon+Kaen+Model.pdf/1fc5165e-33c3-76cc-0201-18ef3a529cb6?version=1.1&t=1583745565904