

# Original Research Psychological stress, job satisfaction, and career decisions of taxi drivers during the COVID-19 pandemic: a study of male senior taxi drivers

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#### Abstract

**Background and objective**: The purpose of this study aims to understand and explore the relationships of stress, job satisfaction, and the career decisions of taxi drivers in South Korea, particularly during the coronavirus disease 2019 (COVID-19) pandemic. Based on the self-efficacy approach and social cognitive career and motivation theory, this study was guided by two research questions, as follows: (1) What are the stress factors for senior taxi drivers? How do senior taxi drivers describe the relationship between stress and job satisfaction, particularly during the COVID-19 pandemic in South Korea? Does age play a role? (2) Did senior taxi drivers leave or retire from the taxi driving profession due to stress and job satisfaction during or after the COVID-19 pandemic in South Korea? Why? Does age play a role? **Materials and methods**: The purposive and snowball sampling strategies were employed to recruit 62 male senior taxi drivers all across South Korea. The in-depth, semi-structured, and private interview session was employed. **Results**: The results indicated that the surrounding environment and individuals, personal considerations with health and body condition, and financial consideration with insufficient pension from the government policy were three key elements for motivations and career decisions. **Contributions and conclusion**: Government leaders and policymakers should take the results from this study as a blueprint to reform and polish human resources planning and working rights for senior citizens who continue to work in the professions. Although the government has encouraged senior citizens to be part of the workforce until the age of 65, many senior citizens in late adulthood still suffer from negative workplace conditions and stress. Immediate solutions are needed as senior citizens deserve a manageable retirement.

Keywords: Career decision; Motivation; Occupational health; Self-efficacy; Social cognitive career and motivation theory; Stress; Taxi driver

# 1. Introduction

# 1.1 Background

In South Korea, men have traditionally worked as the main breadwinners for their families and children. Currently, in 2021, the legal retirement age of South Korean residents is 60 years old; however, there is a discussion concerning extending the retirement age from 60 to 65 to relieve pressure on pensions and benefits. According to a recent report [1], the fertility rate in South Korea has decreased rapidly in the past decade. In 2009, the number of children born per woman was 1.15. Although this increased to 1.3 children in 2012, numbers rapidly decreased to 0.92 children born per woman in 2019. The reduction in childbirth is not the only concern in the South Korean community. More than eight million baby boomers in their late 50s will retire in the coming decade, meaning that there would be fewer taxpayers than those receiving pensions [2]. Consequently, the South Korean government has encouraged Korean residents in their 60s and even 70s to continue in their positions of work to support their families beyond the regular government pension.

Due to the encouragement of the government department and the small pension payments, many South Korean men continue in their working positions or take on new working responsibilities [3], such as freelance work or taxi driving, after the official retirement age of 60. However, work during late adulthood is not easy for many people, particularly during the COVID-19 pandemic [4]. Although there are only a few studies or statistics concerning the registration of older taxi drivers in South Korea, a recent newspaper article [5] indicated that 36.8% or 59, 805 of private taxi drivers are at least 65 years old; 631 private taxi drivers are aged 80 or above, and the oldest is 93 years old working in Daegu, a metropolitan city in the central region. The statistics show a serious problem among the working senior citizens in South Korea, and more importantly, in the working conditions of these groups of senior citizens who may face stress, burnout, negative working conditions, and issues of job satisfaction linked to their career decisions [5].

The working conditions of taxi drivers concern many researchers, health professionals, and human resources planners. From the perspective of workplace violence and stress, a previous study [6] indicated that although taxi drivers fill an important occupation for effective public transportation, many people look down on them due to their blue-collar status and the lack of educational requirements for the job. As South Korea is a traditional hierarchical community [7,8] where people categorize a person's worth based on their occupation, educational background, income, and skills, many transportation drivers suf-

Copyright: © 2022 The Author(s). Published by IMR Press. This is an open access article under the CC BY 4.0 license. fer from discrimination and bias [9]. A recent study [10] showed that many taxi drivers in South Korea face psychological, physical, and sexual violence from customers, supervisors, and co-workers due to their age, working hours, and salary. Conditions in the workplace are less likely to change as most people are accustomed to and accept workplace violence in this profession. Mental and psychological health play an important role in the problems faced by taxi drivers. A previous study [11] showed that taxi drivers experience verbal, physical, and mental harassment from their customers in South Korea. The study indicated that 17.2% of the drivers had experienced emotional disorders, 32% expressed hiding their feelings, and 18.3% had encountered angry customers. More importantly, 33.7% of the taxi drivers had experienced verbal harassment, whilst 12.3% had been physically attacked.

Besides the psychological and physical conditions faced by taxi drivers from customers and co-workers, many experienced body health condition due to their occupation as taxi drivers. A previous study [12] also indicated that taxi drivers often suffer from symptoms of prostatism of their urological system due to their workplace conditions. As with other occupations in which it is difficult to leave the workplace, such as teachers, many taxi drivers continue to sit and cannot urinate regularly within their working schedule. Another recent study [13] investigated the relationship between oral health problems and the personal beliefs of taxi drivers in Jeollabuk-do, South Korea. With the data from 270 taxi drivers, the researchers found that oral health education was greatly needed as many taxi drivers did not correctly understand their oral health due to the unbalanced working hours. In other words, many have to sacrifice their health for their career development and financial consideration. A previous study [14] further indicated that many taxi drivers in South Korea engaged in smoking behaviours due to pressure and loneliness, which greatly influenced their health and condition.

#### 1.2 Purpose of the study

In order to become a taxi driver, individuals usually have a high school diploma, driver's certification for taxi driver, and understanding in Korean language. Although foreign language proficiency is encouraged, no official requirements were listed.

Taxi drivers face psychological, physical, and health issues due to their occupational and workplace conditions. However, many senior taxi drivers are encouraged to continue to work in this profession by the government. Although some taxi drivers decide to leave the taxi industry because of age and health conditions, many continue to work effectively. The purpose of this study aims to understand and explore the relationships of stress, job satisfaction, and the career decisions of taxi drivers in South Korea, particularly during the COVID-19 pandemic. Although there has been some previous research on taxi drivers in this area, no current studies have looked at the issues for taxi drivers during and after the COVID-19 pandemic in South Korea. Therefore, the results of this study may fill the gap in the literature over taxi drivers' problems in South Korea. This study was guided by two research questions, as follows:

(1) What are the stress factors for senior taxi drivers? How do senior taxi drivers describe the relationship between stress and job satisfaction, particularly during the COVID-19 pandemic in South Korea? Does age play a role?

(2) Did senior taxi drivers leave or retire from the taxi driving profession due to stress and job satisfaction either during or after the COVID-19 pandemic in South Korea? Why? Does age play a role?

# 1.3 Significance of the study

Although taxi drivers and other transportation workers are important professionals for the transportation system, the general public members and government department leaders do not pay attention to them due to their social status and social level [7,8]. As a result, only a few studies and reports concerned their physical and mental health, stress, job satisfaction, and career-related issues in the current database. Although very few studies [12-14] were conducted, a large gap still existed in the current literature. Therefore, the results of this study may fill up the gaps in these areas with the concerns of taxi drivers' behaviours and social issues in the South Korean environment. Also, government leaders, public health professionals, union workers, and policymakers may take this study as the blueprint to reform taxi drivers' current workplace policies and conditions.

# 1.4 Theoretical framework

Two theoretical frameworks were employed - the selfefficacy approach [15] and the social cognitive career and motivation theory [16,17]. Bandura developed the selfefficacy approach during the mid-1990s, advocating that an individual's personal belief in their skills, abilities, and capacities affects their behaviour and actions necessary for achievements, performance, and outcomes. Self-efficacy connects confidence in one's skills, abilities, and capacities to exert control over an individual's personal motivations, behaviours, and social backgrounds. These psychological self-evaluations impact different elements of an individual's experiences, such as achievements, outcomes, goals, the likelihood of getting points, and contribution to goals. If an individual has a strong and positive self-efficacy, they will try their best in achievements, goals, and contributions. However, if the individuals do not believe in themselves, no significant contribution or energy is likely to be achieved.

The social cognitive career and motivation theory was recently developed by Dos Santos [16,17] based on the guidelines of the self-efficacy approach [15] and social cog-

nitive career theory [18,19]. The application of the social cognitive career and motivation theory was appropriate because this theory aims to understand the career intention, career development, and decision-making process of the individuals. The social cognitive career and motivation theory postulates that individuals' career motivations and decisions may be influenced by two internal and external factors. First, a focus on psychological and internal factors with self-efficacy indicated that academic interests, personal considerations, and achievements of education and career goals would influence an individual's motivation and career decisions. Second, a focus on social and external factors indicated that interests in career development, financial considerations, and the surrounding environment and people may influence an individual's motivation and career decisions. Dos Santos [16,17] advocated that individuals' career intention, career development, and decision-making process may be influenced by a single or multiple factor(s) from the theory. Although the social cognitive career and motivation theory covers two internal and external factors with six sub-factors, individuals' intentions may only match one or more than one factor(s). Fig. 1 (Ref. [16,17]) outlines the relationship of the social cognitive career and motivation theory [16,17].



**Fig. 1. The social cognitive career and motivation theory.** The social cognitive career and motivation theory indicated that individuals' career and motivation factors might be influenced by two factors: the psychological and internal factors with self-efficacy and social external factors. The figure is absorbed from Dos Santos [16,17].

# 2. Methodology

The researcher wants to understand the in-depth stories for the motivations and career decisions of a group of senior taxi drivers in South Korea. Therefore, the qualitative research design may meet the expectation of this purpose. As a result, the researcher employed phenomenology [20] with interpretativism [21] as the research design.

#### 2.1 Recruitments and participants

The purposive and snowball sampling strategies [22] were employed to recruit 62 male senior taxi drivers all across South Korea. First, the researcher invited three senior taxi drivers to this study based on the personal network orally. Once the participants agreed with the study, the researcher formally sent the consent form, purpose of the study, data collection protocol, risk statement, procedure, and related materials. All signed and agreed with the procedure of the study. One special requirement was that the participants needed to try their best to refer at least one senior taxi driver in any South Korean region. After several rounds of referrals, 62 participants were recruited.

#### 2.2 Data collection

The in-depth, semi-structured, and private interview session was employed [23]. First of all, the participants have already read the interview questions before the interview session. During the interview session, the researcher asked questions about their career development before driving, their motivations for joining the profession, their current experiences about their occupation, and any future plans for the soon future and next decade. The interview session lasted from 67 to 122 minutes with no breaks. Many taxi drivers are monolingual and can speak Korean as their only spoken language. Although five participants could speak Mandarin Chinese fluently, nearly all could not. Therefore, the researcher employed an oral interpreter (Korean-English) during the interview session. Before the interview session, all participants agreed with the participation of the oral interpreter. Also, during the interview sessions, the researcher employed a digital recorder to record the oral messages. The participants agreed with this arrangement.

#### 2.3 Data analysis

Once the researcher collected all the interview data (i.e., voiced messages) from the participants, the researcher transcribed the data to the written transcripts. The researcher re-read the materials multiple times in order to find out the connections and themes between the stories. First, the researcher employed the open-coding technique to understand the connections in these massive transcripts. At this point, the researcher categorised 11 themes and five subthemes as the first-level themes. However, many qualitative researchers [22,24] advocated that further actions should be taken. Therefore, the researcher employed the axial-coding technique to narrow down the materials. As a result, three themes and two subthemes were yielded.

# 2.4 Human subject protection

The privacy of all parties is the most important element. Therefore, the signed consent forms, oral messages, written transcripts, personal information, contact information, locations, computer, and related materials were locked in a password-protected cabinet. Only the researcher could read the materials. After the study was completed, the researcher deleted and destroyed all the related information immediately. All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved and supported by the Woosong University Academic Research Funding 2021 (2021/0101-0530-001).

# 3. Results and discussions

Through 62 interview sessions with senior taxi drivers in South Korea, the researcher categorised three themes for this study. Despite taxi drivers belonging to different companies, having different family backgrounds, different salaries, and different personal beliefs, there were, however, many similar comments and stories concerning their occupations as taxi drivers in South Korea. Table 1 outlines the themes of this study.

#### 3.1 Surrounding environment and individuals

The relationships between stress, job satisfaction, and career decisions are key factors in this study. The researcher categorised two main sources of stress from the taxi drivers, including a poor business environment (i.e., tourism concerns due to the COVID-19 pandemic and harassment from local customers). The researchers asked how the relationship between their organisation and co-workers influenced their ideas and experiences. Most believed the interactions between their organisations and co-workers were not significant, as one said:

...many of us are freelancers...some are working for a company...but we don't deal with the managers or other taxi drivers...we do our own driving and jobs...we are not really co-workers but people of the same occupation...no stress or gossips or rumours from other drivers... (Participant #34)

3.1.1 Stress from the poor business environment due to the COVID-19 pandemic

Many indicated that stress from the negative business environment, particularly from a lack of tourism activity, had increased their stress levels. All participants expressed similar comments. One comment was captured:

...no customers are in the shopping districts...before the COVID-19 pandemic, as long as we went to some fivestar hotels and shopping centres...customers were waiting for us...in the airports...dozens of travellers but only five taxis...now, thousands of taxi with five customers... (Participants #23) The researcher asked whether their age influenced their business and experiences during the COVID-19 pandemic. All said yes. Currently, many business organisations are investing in cell phone applications for taxi requests, such as the Kakao Taxi. Some negative comments had been made concerning age, particularly to drivers with white hair and a senior appearance. One said:

...for some cell phone applications...some customers left a comment with a special mark...they cannot use any biased words, such as old man or white hair men...but they added some characters...to show I am a senior driver...very stressful and unfair...I can be a good driver...but the customers discriminate us...because of my age during this COVID-19 pandemic... (Participant #28)

Also, some customers look at the physical appearance of the taxi drivers before selecting a taxi. Now, when customers were looking for a taxi, they look for mid-age taxi drivers due to their personal preferences, as mentioned:

...some customers think senior drivers are slow and ugly...I just want to do my work...I work so hard for my money, and I try my best to contribute my skill to the country...but my outlook and my age...made me very stressed...I want to be a young man...age is not my crime... (Participant #44)

#### 3.1.2 Harassment from local customers

Besides poor business due to the COVID-19 pandemic, with the reflection of a previous study [9], all taxi drivers in this study had experienced verbal and physical harassment because of their age and occupation due to their social status and occupation [7,8]. Relating to their age, all considered that customers care about the relationship between driver age and safety. One said:

...many customers concerns about my driving skills and my age...I care about safety too because I want to go home without problems and see my wife and my family...I am the one who care more than my customers...but they verbally laugh at me and call me old-age driving dog...I listened to these harassments every month... (Participant #8)

All participants shared a similar experience of driving dogs due to their age from their community. In line with a previous study [7], the South Korean society is a traditional hierarchical community. Taxi drivers are considered as the servants of the community members. In other words, the South Korean communities believe taxi drivers have the lower social status. As a result, all decided not to respond to their customers and keep silent as professional taxi drivers. Verbal harassment has become a concern in the rights of taxi drivers. Besides their age, all had experienced discrimination due to their occupation as taxi drivers. One significant comment was captured concerning discrimination of family status, age, and income:

...almost every month, some customers may ask me about my family members...do I have children or grandchildren or not as grandfather...about my age and my in-

Table 1. Themes and subthemes of the study.

	Themes and subthemes
3.1.	Surrounding Environment and Individuals
	3.1.1. Stress from the Poor Business Environment due to the COVID-19 Pandemic
	3.1.2. Harassment from Local Customers
3.2.	Personal Considerations: Health and Body Condition
3.3.	Financial Considerations: Not Enough Pension from the Government Policy

come...they laugh at me because my sons cannot give me some pocket money and my wife cannot make any money from part-time jobs...only the local customers asked...no foreign customers laugh...because of my occupation... (Participant #1)

In line with the self-efficacy approach [15], poor business combined with rude reactions from the local customers greatly decreased the self-efficacy of the professional taxi drivers. Reflecting a recent study [10], many expressed their hard work and professionalism as taxi drivers and the desire to contribute their energy to the community in late adulthood. However, many had received negative feedback and harassment from several directions. A previous study [6] argued that the relationships between co-workers and workplace environment significantly increase the stress and stress-level of taxi drivers. The stress and stress-level further influence the individuals' career intention, career decision, and decision-making process [16,17]. As stress may directly impact self-efficacy and job satisfaction due to the abovementioned factors, in this case, individuals expressed their concerns about their current position [15]. More importantly, these stories must influence their motivations and career decisions, particularly in continuing a difficult job during the COVID-19 pandemic. The results of this study confirmed the arguments of the social cognitive career and motivation theory [16,17] concerning the influence of the surrounding environment and individuals on motivation and career decisions.

#### 3.2 Personal considerations: health and body condition

...my body is old...this is the mercy of God when I can safely return at home...if I caught the COVID-19 illness, I am not sure can I survive or not...the government does not have the schedule for the first and second jabs yet...very stressful because I have to take many customers...these customers can be the carriers of the COVID-19 illness... (Participant #10)

A recent study [25] indicated that health and body conditions are important concerns and considerations for senior citizens and retired people in South Korea. Although 60 is the official age for retirement, individuals may continue to work for extra income in addition to their pension [2]. When the researcher enquired about the relationship of stress, job satisfaction, and career decisions, many indicated health and body condition to be the biggest concern. In line with a previous study, many taxi drivers are suffering from the symptoms of prostatism of their urological system due to the nature of their career pathways, such as need to sit for at least nine hours per day [12]. Further, many drivers suffer from long-term stress and chronic prostatitis, which may significantly limit their career pathways and influence their career decisions [12,13]. Concerning stress, all were afraid of the safety issues around verbal and physical harassment and discrimination from members of the public. One comment was captured:

...foreign customers are very positive regardless of nationality...but the local Korean customers...throw money in front of my face...vomit in my car, and don't pay the cleaning fees...once they used my services and begged a 50% discount...I face these situations all the time...I want to quit immediately because of these rude local customers... (Participant #33)

Besides the poor behaviour from the external sources (i.e., customers) of taxi driving, all were required to sit for at least ten hours in their taxis during the working day [12]. Previous studies [12,26,27] have illustrated the direct and indirect relationships between prostate and kidney-associated illness and occupations such as taxi driving. Although illness and pain mainly occur in the urological system, the psychological stress significantly influences job satisfaction and career decisions. Many have considered leaving the position if the symptoms continue:

...I cannot drink water because no toilets around...many local people like to pee on the street...but I don't want to...if I cannot find the toilets, I don't drink...my wife is very angry because my job impacted my health and body condition...my body check report is very bad because I have prostate disease...very stressful but I don't want to tell my problems to my wife... (Participant #43)

Occupational kidney stones are not uncommon in the taxi driving profession [28]. More than 40 participants indicated that they were suffering from kidney stones and related symptoms. Many described having tried different treatments, such as extracorporeal shock wave lithotripsy (ESWL), cupping, acupuncture, and oriental herbal medicine treatments, but the kidney stone disease continued. Workplace conditions and stress significantly influenced their career decisions. Two stories were captured:

... just two months ago... my urethra was blocked by a stone ... I was so afraid and I have to abandon my taxi and

call the ambulance immediately...the physician told me that if I don't come on-time, I need to do the bladder surgery immediately...I have to consider my job and my health...and balance the pros and cons...I may quit my job soon... (Participant #8)

...I just took my annual body check...more than 10 stones are in my kidney...they will block my bladder and urethra if I don't take care of it...the government asked us to do more work...but they don't have any regulations to help us...I contribute and sacrifice my health and life to the country...but they don't provide any good health and protection to us...the taxi drivers...I may leave soon...I don't want to die... (Participant #22)

In line with the oral health and smoking behaviours [13,14], almost all participants associated with smoking due to the loneliness and stress from their position and income due to the poor business environment. One story was captured:

...I want to quit smoking...but I was alone in my taxi all over the day...I want to do something...I want to smoke and make me happier and relaxing...I cannot enjoy at my home, just like my sisters and brother...smoking is the only way makes me positive...when I feel stress and lonely, I smoke all the time... (Participant #23)

In line with the self-efficacy approach [15], the bad body condition due to their occupation greatly influences taxi drivers' motivations and career decisions. Reflecting two studies [11,13], many expressed low self-esteem, low-self-efficacy, and confusion because of the unbalanced work and body condition. Although health promotion was exercised, these events could not change their work and body condition situations. As many balanced the overall situation, many may leave their position during and after the COVID-19 pandemic. From the lived stories and sharing, the researcher argued that the health condition became the sources of stress which may influence the career intention, career decision, and decision-making process of the individuals. More importantly, the low self-esteem, low-selfefficacy, and confusion negatively impacted the job satisfaction [15,16]. The results of this study confirmed the arguments of the social cognitive career and motivation theory [16,17] concerning the influence of personal consideration and health conditions on motivation and career decisions.

# *3.3 Financial considerations: not enough pension from the government policy*

...I have no money to survive...my wife has long-term disease...she cannot work full-time...and we have to buy a lot of oriental suppliers, medicine, and food for her... the government insurance does not cover these...but oriental cupping treatment and acupuncture are self-funded...but we have to use it because the western medicine doesn't work... (Participant #11)

It is not hard to understand that people work because

they need financial resources and money [16,17]. However, as all participants were senior citizens eligible for the national pension, the researcher wanted to understand the motivations and reasons for their career decisions under such stressful workplace conditions. When the researcher asked about their career intention after the official retirement age (i.e., 60 years old), all need to continue their position due to the financial concerns after the retirement from their previous positions. Also, all participants expressed similar ideas and concerns about the pension system and medical benefits. A recent study [29] indicated that South Korean people have some of the longest lives in the world. According to the World Bank Group [30], the life expectancy of South Korean people has increased from 55.4 (1960) to 75.91 (2000) to 83.2 (2019). Life expectancy is anticipated to increase further due to excellent medical developments. In other words, if an individual decides to retire after 60, they may have no income other than their pension, potentially for 23 years without active income. Many families cannot afford to rely on the monthly pension payments. Therefore, work after retirement age is needed, including for housewives. Based on financial concerns after retirement, two stories were captured:

...I cannot stop working because I am the only one making money in my family...my sons have their own family already...but my wife and I spend and give all our savings to my sons...for their apartment, education for my grandchildren and so on...my wife and I need to go back to workforce for money...we did not have university degree...no one will hire senior citizens...taxi driving is my only ways for money... (Participant #57)

...the pension system in the Korean government is very bad...we have to use at least 2 million Korean won for our basic survival, such as rice and electronic bills...but the pension system can only contribute 1.8 million...2 million is the basic...we need to have fruit and vegetable...we need to eat meat and buy bathroom items...we cannot survive with the pension payment... (Participant #33)

Almost all participants complained about the pension system, the monthly payments of which cannot cover basic expenses. Another concern was raised of medical expenses for senior citizens. Although the government covers all essential medical costs for senior citizens, medical treatments and medicines beyond the government-issued lists are not covered, such as monthly expenses for facial masks and hand gels. Although many pointed out that facial masks only cost a small amount, this could be a significant cost for many retired individuals and low-income families. In this study, many expressed similar concerns, and two stories were captured:

...the cost of facial masks is large...the government recommended us to change masks every four hours...so I have to use three masks per day...my wife and I need to use six per day...and 180 per month...the government does not give up for free...we have to pay for it... (Participant #31) ...even if I work, I have to follow all the regulations and guidelines from the government as a taxi driver...the government recommended us should put a can of hand gel in our taxi...the hand gel is gone in two days...but the government does not sponsor us...if I don't follow the guidelines, the police officers will catch me and issue me a fine ticket...I want to quit my job but I cannot...I have family... (Participant #5)

In short, based on the shared stories from all participants, retirement pathways are relatively difficult as many taxi drivers have concerns about basic living expenses. Retirement should be pleasurable for many families and senior citizens because of the government pension and excellent medical expenses cover [2,25,31]. However, many participants expressed the opposite due to the failed pension system in South Korea. In fact, all senior-aged taxi drivers want to quit their current position. However, their financial situation does not allow them to leave their position. Financial considerations meant they have had to carry their old and weak bodies back to the workforce as taxi drivers. In line with the social cognitive career and motivation theory [16,17], financial consideration with the failed pension system continued to limit senior taxi drivers' selection.

# 4. Limitations and future research directions

According to a previous study [12], men in varying occupations, such as taxi drivers and barbers face similar health conditions, such as chronic prostatitis, due to their working requirements. However, the current study only covered the situation relating to taxi drivers. Future research may expand to populations from other career pathways, such as bus drivers, teachers, and security personnel, to understand men's health problems. Furthermore, only senior taxi drivers participated in this study, but all male taxi drivers could face similar problems. Therefore, future research studies could collect data from other groups to provide a holistic picture and understanding of this social problem.

# 5. Contributions to the practice and conclusions

Government leaders and policymakers should take the results from this study as a blueprint to reform and polish human resources planning and working rights for senior citizens who continue to work in the professions. Although the government has encouraged senior citizens to be part of the workforce until the age of 65, many senior citizens in late adulthood (i.e., above 65) still suffer from negative workplace conditions and stress. Immediate solutions are needed as senior citizens deserve a manageable retirement.

Health professionals should pay attention to this study, as it indicates that male taxi drivers suffer from chronic prostatitis and kidney stones, psychological stress and disorders, and physical attacks, because of their workplace environment. Psychological counselling and long-term health promotion may be helpful for taxi drivers, regardless of age and social level.

Those working in human rights, social equality, and worker's unions should understand the long-term problems faced by frontline and low-income workers in the community. Although taxi drivers are blue-collar workers who do not fully understand how to protect their rights, related professionals may expand plans and schemes to these groups of workers who are important in solving transportation issues in the community.

# **Author contributions**

LMDS is the sole contributor to this article.

# Ethics approval and consent to participate

The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved and supported by the Woosong University Academic Research Funding 2021 (2021/0101-0530-001). All subjects gave their informed consent for inclusion before they participated in the study.

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# **Conflict of interest**

The author declares no conflict of interest.

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