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INVESTIGATING EMPLOYMENT AND CAREER DECISION OF HEALTH SCIENCES TEACHERS IN THE RURAL SCHOOL DISTRICTS AND COMMUNITIES: A SOCIAL COGNITIVE CAREER APPROACH

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ABSTRACT

Teachers' shortage in the field of K-12 teaching in general and health subjects teaching in particular is one of the most significant challenges in both developed and developing countries, particularly in rural school districts and communities. Leaders at rural school districts strive to establish connections and plans to recruit experienced health educators from different sources and satisfy the on-going manpower demands in rural areas. This study examined two premises: First, why health professionals and staff from urban regions decide to change their career to health science teaching in rural communities and school districts. Second, how to recruit and retain health professionals and staff to rural communities and school districts. The Interpretative Phenomenological Analysis model was employed to explore the beliefs of 11 health professionals in the rural school district. Stable employment, money sources, and understanding of teaching mission of health science education were three major areas of study. The findings of this study would serve as a blueprint for rural communities and school districts to attract potential health professionals and staff into the current education system.

Contribution/Originality: This study investigated the reasons why frontline health professionals decide to switch their career to health sciences teaching in rural communities based on Social Cognitive Career Theory. It contributes to the existing literature on teachers' education programmes, rural school workforce, and second-career teachers in the field of health education.

1. INTRODUCTION

Shortages of recruitments and retention of health professionals in rural communities are significant challenges in modern times (Brems *et al.*, 2006). Health promotion and health education are big challenges for remote rural districts and communities where there are not direct connections and replacements for potential health professionals (Curran *et al.*, 2006). Currently, approximately half of the global population lives in rural communities. However, unlike the suburban, urban, and metropolitan regions, rural communities and school districts face long-term problems in seeking appropriate health science teachers and social caring professionals (Ricketts, 2000). Therefore, it is important for health and social caring professionals and educators to seek linkages between urban and rural communities in order to establish universal health coverage and health science education for next generations. Currently, a number of rural health-related agencies and school districts are facing the challenges of

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retirements and high turnover of their experienced and professional staff. Incidentally, these challenges are exclusively for rural communities only, since urban health facilities are able to recruit fresh graduates from long-term placements and internship programmes between universities and health departments (Clark, 2007; Skledar *et al.*, 2009). Moreover, potential and experienced health professionals prefer to start their career pathways and developments at urban health facilities owing to opportunities and promotions. As a result, rural communities and rural health facilities suffer for being in regional and remote areas where they may not be able to provide benefits (Lee and Fitzgerald, 2008; Darras *et al.*, 2016; Cramer and Hamilton, 2017).

The major goal of this study was to understand how to attract experienced health professionals in Indiana, United States. (In fields of nursing, public health, and nutrition) who are currently working in the urban regions to switch over their career pathways to rural communities and school districts as health science educators. It is worth to note that this research study focused on public health workforce and employment shortage for rural communities and school districts (Kozhimannil *et al.*, 2015).

1.1. The Challenges of Health Education in Rural Communities and School Districts

Five primary concerns are involved with this phenomenon of Health Education in Rural Communities and School Districts (Lensmire, 2017). First, a large number of rural American communities and school districts progressively experience population growth. Health science education is therefore one of the fields that require experienced health professionals and staff. Although educators with related academic background can provide instructions to young students in rural areas, but truly speaking, experienced health professionals and staff in the field of nursing, public health, nutrition, and health promotion, understand much better how to promote and transfer health knowledge to their audiences. Second, massive retirements of senior health professionals, staff, and teachers are expected to occur in a decade, particularly in the field of health science education. School districts and health promotion agencies, particularly in the rural communities, must recruit and establish connections and placements to satisfy the significant gaps within this decade (Pit and Hansen, 2014).

Third, the young generations show detachment for teaching profession. Unlike other liberal arts subjects, health science education requires experienced staff with related academic background, experience, and instructions for knowledge transferring. Also, health science educators need to be provided appropriate training, such as teachers' preparation programmes, so that they can further educate secondary school students. (Peterson *et al.*, 2001). Fourth, rural communities and school districts do not offer attractive salaries and career advancement plans for health professionals, staff, and teachers, particularly in the field of health science education. Unlike large-size cities with big populations, rural communities and school districts usually do not have regular openings and vacancies for promotions. The experienced health professional, staff, and teachers tend to leave their positions due to the limitations of opportunities (Chaudhury *et al.*, 2006).

Last but not least, the benefits and compensations of active public health professionals (e.g. nurses, nutritionists, medical doctors, and midwives) are usually better than those of secondary school teachers at rural school districts (Baumann and Winzar, 2016).

The vacancies of teaching positions in K-12 job market transcends the search for relevant candidates, particularly in the field of health science education in rural communities and school districts (Fishman, 2015). To address the issue of teacher shortage in rural American communities and school districts, the Indiana Department of Education has coordinated with several higher education institutions (HEIs) to start teachers' training qualification programmes for non-qualified in-service and pre-service teachers. As of early 2019, 49 HEIs and organisations have already proposed such training programmes to fulfil the requirements for teacher's qualifications. As for the traditional In-State initial license training programmes, these programmes aim at two directions and audiences. First, they cater to the needs of undergraduate programmes including coursework and student-teaching internship. Second, they form a part of postgraduate programmes that include coursework and

student-teaching internship exclusive to students with at least a bachelor's degree without teaching qualifications. For university graduates intending to switch careers from other professions (e.g. nursing) to teaching, a postgraduate teaching qualification would respond to such demand. Individuals participating in teaching professions from other fields are expected to contribute their distinct personal and professional culture, competencies, scholarly understanding, principles, and social views. They can also share their expertise with the broader community beyond school premises (Correa and Pavez, 2016; Dos Santos, 2017).

1.2. Background of the Research

A rural school district in Indiana, United States, was selected for investigation for two reasons. First, like many rural communities in North America, Australia, Europe, and Asia, the rural Indiana communities face significant challenges of limited opportunities, which in turn hinder career advancement of professionals impacting social and business development (Cromartie *et al.*, 2015; Lensmire, 2017). Second, in the current rural community in Indiana, due to limited opportunities, Indiana people have failed to be a part of multi-industrial developments. For nearly a century, the Indiana rural counties and communities are confined to farming industries. Due to limited work opportunities, most of the residents work in traditional professions (e.g. farming, government, school, healthcare and medical centre, etc.). Although other industries and occupations exist, most of the residents still tend to work in the farming profession due to the self-employed status. As a result, very few qualified teachers in Indiana decide to move with their families out of the rural communities for family and career development (Yoshida *et al.*, 2018).

The current qualitative study deals with career-changing teachers in the field of health science education who have at least three years of working experience in the field of health profession at one of the urban-based health facilities. These participants have already completed their coursework stage but still completing their student-teaching internship requirement at a rural school district in Indiana for the Initial License. The purpose of this research paper was to understand two points:

1. Why should health professionals and other staff start their health science education teaching career in the rural communities and school districts?
2. How to recruit and retain health professionals in rural communities and school districts?

Accordingly, the researcher gathered data from individuals with different background, academic qualifications, and personal histories (Brownlee *et al.*, 2001; Wilson and Deaney, 2010). The researcher suggested that career-changing pattern is not common as mature adults tend to develop and promote their career pathway and network to an advanced level. However, changing career pathway means individuals need to give up their networks in one profession (i.e. public health) to another (i.e. health science education). Therefore, changing career requires significant considerations and back-up financial resources to meet expenses during career relocations (Dos Santos, 2016). Moreover, changing career pathways from public health profession to secondary school teaching in the field of health science education is not common in contemporary American society. Therefore, an investigation should check whether these career changers share similar fundamental characteristics (Gillies, 2001). Furthermore, the health-related professions, including health science teaching and school health staff, are thirsty for qualified professionals for on-going openings. Therefore, this research study may serve as a blueprint in this area (Sherman *et al.*, 2017).

The policymakers and researchers generally look at results and behaviours of pre-service teachers registering in undergraduate Bachelor of Education programmes (Adams and Woods, 2015; Darling-Hammond, 2016). A few of these studies have investigated adult learners, evening students, as well as career-changing teachers who were enrolled in teachers' training qualification programmes. Also, a limited number of studies have focused on postgraduate teachers' training qualifications programmes and graduates (Ward, 2016). Gaining insight into the behaviours and knowledge of career-changing teachers is necessary to maximise the scholarly directions of these teachers' training qualification programmes, particularly in the field of health science education and rural school

districts. By employing Social Cognitive Career Theory (SCCT) (Lent *et al.*, 1994) the researcher could gather personal beliefs and perspectives from the career-changing teachers about their understanding of career interest developments, career and educational choices, particularly why they decide to switch from public health profession in urban-based health facilities to rural communities and school districts for health science teaching in Indiana.

1.3. Theoretical Framework

Social Cognitive Career Theory (SCCT) (Lent *et al.*, 1994) was used as the framework of this study. It was supported by Bandura's social cognitive theory (Bandura, 1986) to include the view on career, decision, and behaviour. Both theories have defined a learning model and cognitive behaviours prompting individuals to develop:

1. The formation and elaboration of career-related interest.
2. Selection of academic and career choice options.
3. Performance and persistence in educational and occupational pursuits.

SCCT emphatically distinguishes intentions from behaviours, considering people's tendency to express their beliefs truthfully. Individual behaviours and personal beliefs are highlighted because they express themselves by their beliefs. SCCT is an affirmative and nurturing study guide not only in the quest to chart the progress and behaviours of career-changing teachers but also to gain insights into their experiences, behaviours, and evaluations of their community (Lent *et al.*, 1994).

SCCT highlights the influence of cultural, social, and economic factors on an individual's self-knowledge and opportunity outcomes. Indifferent and unfavourable environmental factors may affect people's behaviours and reactions (Lent and Brown, 2008). To illustrate, it is sometimes observed that career-changing teachers during economic depression may be exposed to mental and psychic disorders. As a result, these career-changing teachers undergoing such negative experiences may change their minds as well. The influence of the environment has the following common factors:

1. The background influence that formulates goals, self-efficacy beliefs, interests, and expectations.
2. Personal influence that instantly affects one's career selection.

Background influence can be classified as residential location, age, gender, and skin colour, among others. Personal influence can be classified as conversations with peers and those with individuals from other professions (Lent *et al.*, 1994; Lent and Brown, 1996;2008). The SCCT model was particularly to gain an understanding of the career selection behaviours of minority groups, women, and rural community members (Lent *et al.*, 2000; Morgan *et al.*, 2001; Lent and Brown, 2008; Kim and Seo, 2014; Matusovich *et al.*, 2017; Carrico *et al.*, 2019).

1.4. The Significance of this Study

Research (Curran and Rourke, 2004) has indicated that instead of providing additional training to non-experienced staff, it is wiser to recruit experienced health professionals from the urban regions for rural communities. This is one of the fastest solutions to handle the immediate situations in the remote areas, particularly in school districts (Griffiths and Christensen, 2007).

For the current research, two significant elements were established. First, in the current database, a number of research studies have although focused on challenges related to recruitment and retentions problems of urban and suburban hospitals and health care centres but very few have dealt with the promotion of the understanding of healthy lifestyles and habits of the rural populations, particularly educating transitional -age students with the sense of health is one of the most important features (Boulger, 1991). Therefore, the results of this study would serve as one of the first few contemporary studies in this area of rural health care and health science education.

Second, one of the goals of this study was to understand the career decisions of health professionals to enter into health science education and work at rural communities and school districts in Indiana, United States. In the current database, there are no research studies focusing on this particular region nor on health education nor on

the decisions of second-career teachers who switch their career pathways to rural teaching based following the Social Cognitive Career Theory (Lent *et al.*, 1994). Therefore, this study will prove one of the very first studies focusing on this field with the Social Cognitive Career Theory.

2. METHODOLOGY

A qualitative methodology (Creswell, 2007) using the in-depth interview tool was appropriate for this study because the goal of this research was to collect the in-depth feedback and understanding of experienced health professionals and staff who had planned to switch over their career pathways to health science education from urban environment to rural communities and schools districts. It was required to ask participants face-to-face questions in order to capture the desired first-hand information without any potential misunderstanding that might have caused from survey and phone interviews (Smith *et al.*, 2009).

2.1. Participants and Data Collection

Participants needed to meet following eligibility conditions in order to participate in this study. First, they must be employed (at the time of the interview) in public health profession for at least four years. Second, they must have enrolled in one of the postgraduate teachers' training qualification programmes (P-12 and Secondary). Third, they must be planning to leave their current public health profession and enter the teaching profession in the field of health science education after completing the programme with the Initial License. Fourth, they should not have any teaching experience, including private tutoring, part-time teaching, or vocational training prior to the student-teaching internship. Fifth, they must be conducting or planning to conduct their student-teaching internship at one of the rural school districts in Indiana, United States. The participants were notified that this research study focused on public health workforce and employment shortage for rural communities and school districts (Kozhimannil *et al.*, 2015). They were also told that if they do not plan to develop their teaching career at rural communities and school districts, they should notify to the researcher at any stage of the research study.

Participants were sampled from four teachers' training qualification programmes (P-12 and Secondary). The enrolment of these four programmes was approximately 90 students in total. Most of these enrolled students were in-service teachers without teaching qualification and Initial License. Only less than 40 students were employed in the field other than teaching. Consequently, 11 career-changing teachers with a background in the field of public health agreed to participate in this study. Table 1 outlines the demography of participants. All identifications of participants have been concealed under pseudonyms.

Table-1. Summary of the demography of participants.

Name	Yrs. experience	Subject Matter(s)	Current profession and Undergraduate degree
Alice	16	Health	Nursing
Benson	6	Health	Nursing
		Life science	
Cathy	4	Health	Nursing
Donald	5	Health	Nursing
		Life science	
Edith	8	Health	Nursing
		Life science	
Francisco	10	Health	Nursing
		Life science	
Gillian	18	Health	Nursing
		Life science	
Helen	8	Health	Public health
Ivan	9	Health	Public health
Jason	10	Health	Nutrition
Katherine	13	Health	Nutrition

Due to the small-size of participants' population, the study employed a qualitative research method that incorporated the Interpretative Phenomenological Analysis (IPA). IPA is a useful tool to understand how individuals and participants make sense of their personal experience, lived stories and social world (Smith *et al.*, 2009; Tang and Dos Santos, 2017). This method enabled the researcher to gather descriptions of comprehensive personal understandings and beliefs influencing their career-changing motives. IPA is an appropriate methodology to understand and explore new topics and research projects without previous experiences. As IPA tends to gather information from a micro-level perspective, small sample size and minority population, the employment of IPA fits the direction of this research paper (Smith *et al.*, 2009).

The small sample size comprising 11 participants also enabled the researcher's analysis of each participant's distinct characteristics such as personal stories, habits, career plans and beliefs. Also, considering the insufficient number of potential participants, utilising the IPA methodology was used to maximise the interview data and comprehensive descriptions in order to address the current missing gap for career-changing teachers. Moreover, the researcher incorporated semi-structured interviews questions (Seidman, 2006;2013) and SCCT with the methodological style of IPA. In other words, the semi-structured interviews questions intended to collect the in-depth understanding of career developments, personal experiences, economic influences, and lived stories from the participants.

Based on the review of related literature and research questions, two sessions of semi-structured one-on-one interview were developed in order to explore the significant aspects of this research. First, the researcher interviewed each of the participants individually in a semi-structured, one-on-one in-depth interview about their past experience and personal stories for joining the health professionals after university graduation. Each interview lasted 45-60 minutes. Second, the researcher invited the participants for a second semi-structured, one-on-one in-depth interview about their current understanding of health science education and the reasons why they decided to switch their career pathways from one of the urban health facilities to the rural communities. Each interview lasted 45-65 minutes. All of the conversations were digitally recorded, transcribed, and returned (i.e. for member checking) to the participants for validation of the content (Merriam, 2009). Once the participants approved their transcripts, the data was analysed using the MAXQDA v.11 qualitative analysis software.

2.2. Data Analysis

Themes and patterns that emerged during the interview sessions were independently categorised. An inductive approach was employed for this study (Thomas, 2006). The inductive approach allows a researcher to understand the feedback and sharing. The researcher followed the general inductive approach (Thomas, 2006) to narrow down the large-size transcripts into first-level themes by using the open-coding technique (Creswell, 2007;2012). After the researcher had completed open-coding technique, 25 themes and 40 subthemes were established due to the rich and in-depth sharing and interviews from 22 different sessions of interviews.

Based on the recommendations of the general inductive approach (Thomas, 2006) suggests that data should be narrowed down for slim categories. Therefore, the axial coding (Creswell, 2007) was used to decrease the data into a second-level theme (Merriam, 2009). The Figure 1 exhibits the overall procedure.

2.3. Protection of Subjects

The protection of human subjects is important to any study, particularly in health sciences and education researches. The researcher made every effort to protect the identities of all participants and the research sites by masking their names and locations. By protecting their identities, it allowed all participants to remain anonymous to any potential employers in the field, particularly for rural communities and school districts. Also, the names of research sites were masked (Creswell, 2007). In order to report the results and findings in a structured order, the researcher provided pseudonyms for each participant, research sites, and their interned schools. However, as this

study tended to provide the holistic picture and explore the social problems in Indiana, United States, the name of the state was not hidden.
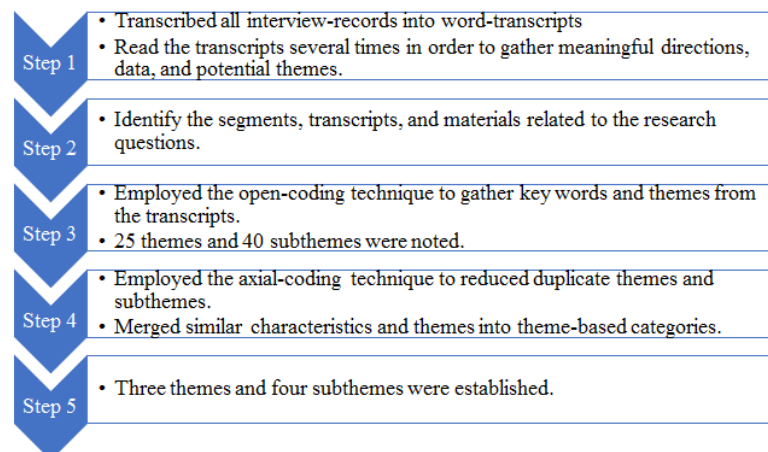

Step 1
• Transcribed all interview-records into word-transcripts
• Read the transcripts several times in order to gather meaningful directions, data, and potential themes.

Step 2
• Identify the segments, transcripts, and materials related to the research questions.

Step 3
• Employed the open-coding technique to gather key words and themes from the transcripts.
• 25 themes and 40 subthemes were noted.

Step 4
• Employed the axial-coding technique to reduced duplicate themes and subthemes.
• Merged similar characteristics and themes into theme-based categories.

Step 5
• Three themes and four subthemes were established.

Figure-1. Data analysis procedure.

All the related documents, such as signed and unsigned agreements, digital records, personal information, site information, participants' information, and computers, were locked in a password-protected cabinet. Only the researcher had the key to unlock any of the items. Once the research was finished, the researcher deleted and destroyed information, forms, and documents with the personal information, signatures, and signed documents with the identification of participants and sites (Merriam, 2009).

2.4. Ethical Considerations

All potential participants, related personnel, and sites received written and verbal descriptions of the research study including its aims and expected achievements and were informed of their rights to withdraw at any time without prejudice. Woosong University research department had approved grant for this study.

3. RESULTS

The pathways of switching career from health profession from urban environment to health science education at one of the rural communities and school districts are uncommon in the contemporary American society. Still, participants expressed positive feedback and shared their feelings and experiences related to this switchover. Unlike fresh university graduates and Bachelor of Education degree holders who plan to start their career in the field of teaching and education, health professionals and staff switch their career pathways with considerable reasons.

It was significantly important to understand why these health professionals had decided to switch over their career to rural communities and school districts. Their shared experiences would be the blueprint for leaders and policymakers at rural communities and school districts to establish connections with colleges and universities, and entreat potential health facilities in urban regions to transfer experienced health professionals and staff to rural communities.

The primary goal of this study was to understand how to attract experienced health professionals in Indiana, United States (i.e. nursing, public health, and nutrition) who were working in the urban regions to switch over their career pathways to rural communities and school districts as health science educators In order to answer their current social problems, the researcher employed the Social Cognitive Career Theory (Lent *et al.*, 1994) as the theoretical framework to understand and explore the elements and factors of these particular groups of participants in Indiana. The research questions of this study were:

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1. Why should health professionals and other staff start their health science education teaching career in the rural communities and school districts?
2. How to recruit and retain health professionals to rural communities and school districts?

After 22 interview sessions with participants, the researcher analysed the data information and interview transcripts into meaningful themes and subthemes following the general inductive approach (Thomas, 2006). Through this qualitative inquiry, the researcher was able to conduct an inductive analysis of the data and establish themes, answer research questions, and discuss the findings (Creswell, 2007;2012; Merriam, 2009). The analysis of the interviews yielded three themes and four subthemes. The findings were supported by verbal quotations from interview transcripts. Table 2 outlined the themes and subthemes of the results.

Table-2. Themes and subthemes of results.

Themes and subthemes
3.1 Stable employment.
3.1.1 Unstable working schedule.
3.1.2 Depression of the economy.
3.2 Money sources.
3.3 Understanding of the teaching mission of health science education.
3.3.1 Being a parent and teacher.
3.3.2 A bridge toward future.

3.1. Stable Employment

Career changers generally have solid reasons to switch careers. Considering that many of the mid-career-changers have previously built up long-term networking in their former professions, participants of this study had some pivotal events and factors that compelled them to rethink their career paths. All participants had worked in industries other than teaching (i.e. public health profession). All participants explained that they decided to switch their careers because of employment issues. In expressing this primary theme regarding stable employment, the researcher found that the participants described experiencing negative situations as motivations for their employment. The finding of this section echoes in literature (Joseph and Green, 1986; Daniel and Ferrell, 1991; Darling-Hammond, 2000; Petrin *et al.*, 2014) about the security of tenure and income, steady professional standards, and meaningful long-term service. Thus, two subthemes identified within this primary theme were *unstable working schedule* and *depression of economy*.

3.1.1. Unstable Working Schedule

Alice, who works as a nurse in one of the urban medical centres in Indianapolis, United States, stated, "I am a mother of a pair of twins. I hope I can work in a job with a stable environment instead of a flexible schedule." "Cathy also shared about her swift work schedule in the nursing profession, "I have missed several Parents' Day of my son for more than five years. I cannot afford any missing…" Katherine also shared a similar idea as Alice's,

> *Combining professional work with motherhood is difficult. My husband must work for the double time. It is challenging to opt to stay at home as a housewife because our savings and salary cannot cover our expenses…I can resume taking care of my child...However, I cannot ask the elderly to look after my children. I know they enjoy the task because they all love their grandchildren…in my opinion; I do not want to cause stress to the elderly.*

Three participants thus believed that unstable working hours might affect their work-life balance as a mother. Given that public health professionals who started their career in the urban environment still consider family life as one of the most important values in their traditions, family and children should be a priority on their list.

In short, it is worth to note that several participants advocated that the balance between work and family life was one of the major reasons of switching over their career pathways from health profession to health science

education. Although some advocated that teaching career should not be easier than health profession, participants believed switching over may provide them opportunities to resolve their family issues.

3.1.2. Depression of the Economy

In 2018, depression and unforeseen economic environment under the current American economy had compelled many of the organisations including hospitals and medical centres to suspend all recruitments. . With this economic downfall, many residents in different fields looked for additional qualifications and certifications to secure other opportunities. Benson, Donald, Edith, Francisco, Gillian, Helen, Ivan, and Jason expressed a different idea than Alice, Cathy, and Katherine, but their opinions were all related to their employment contract. Benson was working in an urban medical centre near Chicago, United States. He described his desire to switch to the teaching profession in the rural communities because of the employment contract, "…working as a contracted or fixed term nurse is unstable…basically, there are enough nurses in the urban environment…the urban-based medical centre can easily replace me…so I want to start my career in rural…"

Benson believed that rural communities without enough public health professionals and teachers in the field of health science could secure his employment. Donald was working at a private clinic. He expressed similar opinions as Benson's regarding the convenient replacement under the current economy,

> When the economic environment is positive, the private clinics recruit many workers in the team…The owner usually cuts off the budget from the male nurses due to the gender-bias…I am very afraid that I cannot receive a continuous contract.

Notably, employers must consider their profits before continuing any of their employees' contracts, particularly for private-based clinics and hospitals. Such behaviours occur not only in Indiana and the United States but also in all industries worldwide. However, these apprehensions also affect the thinking of Edith and Francisco. Edith works as a nursing supervisor in the emergency room division in one of the urban hospitals in Indiana, United States. Despite her probable promotion as senior supervisor six months later, she still decided to leave the profession. She added,

> When I was expressing this idea [only work for the day and afternoon shifts] to my manager, she asked me to leave the position…However, the fact is that the budgets for the departments progressively decreased. By now, my manager is already aware that I am enrolled in a few courses in teaching. Based on the current negative economy, my boss may not continue my contract.

Edith had negative opinions regarding the current economy as the government budget has been progressively decreasing. Such negative statistics of her department compelled her to reconsider her career path from an unstable to a stable position. Finally, Francisco also experienced a similar situation as Edith's. Two of Francisco's co-workers had been terminated because of the negative economy before the beginning of the teachers' qualification programme, thereby explaining why Francisco wanted to join this programme,

> I am the elderly caring department administrative supervisor now…I will no longer be able to work in this position after the break. My department has terminated several service providers since the beginning of the year. We used to have five people in the office…The economy has made it very hard to continue.

All the participants' experiences were similar. Alice and Cathy were concerned about their unbalanced schedule because of family issues. Others had commented regarding the difficulties of the current economy. Common to all was the concern regarding the unstable employment and contract, but as pre-service teachers, the stable schedule and employment could now increase their interests. Such experiences echoed previous studies (Joseph and Green, 1986; Darling-Hammond, 2000; Petrin et al., 2014; Darling-Hammond, 2016).

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3.2. Money Sources

Another consideration for switching career paths from public health profession to health science teaching is the money sources. Although the salary in teaching profession in the United States is not attractive, vacation and retirement benefits are attractive, particularly for rural communities and school districts. It is worth to note that overall salary of public health and nursing professionals may be higher than teachers in rural communities and school districts. However, public health professionals and nurses usually need to work additional over-timed hours due to the additional payments and extra responsibilities.

Helen expressed her beliefs that teachers' salary can sufficiently satisfy her needs, "Working as a human service provider is meaningful…which the same as a teacher is. Both positions cannot make a huge amount of money. However, at least…between families and working hours…I believe working in the rural community is better." Jason and Cathy believed that the salary could cover their family expenses and payment of the mortgage. Jason said, "Banks usually do not release mortgage and loan sources to nutritionists who are making minimum wage…but as a teacher, they will." Cathy said the teaching profession in the rural communities and school districts could increase her family's chances to apply for a mortgage saying, "my husband is a waiter supervisor; banks usually do not provide mortgage priority for families…If I am a teacher, particularly in the highly demanding field, which is a perfect occupation, we can start our mortgage." Some participants were attracted to the teaching career because of the competitive salary with the stabled working schedule. Edith and Francisco also shared a similar situation with additional opinions. Both believed that their teaching qualification in health science education could enhance their chances to work in various departments in rural communities and school districts. Edith said,

> Nursing and health science teachers in urban communities are enough…If I have relevant educational qualifications, it could increase my chances to work for different students and teachers. If I can work in a rural school with which needs my help, I cannot imagine how great it would be.

Francisco's statement also demonstrated a similar situation as Edith's when he said,

> …experienced health science and life science teachers…such professionals do not exist in rural communities and school districts…no technology, no labs…if a teaching qualification can help me seek opportunities to serve the rural students and school districts, well, I would try…

The participants thus accepted money sources as one of the considerations for career switching. Some claimed that satisfying family financial needs through this great profession encouraged them to teach. As Ivan explained, "My family needs the money for the mortgage." The other participants advocated that the teaching qualification can enhance their opportunities to enter civil services. Currently, the average salary for public secondary school teachers in rural Indiana is USD $60,000 per year. The salary is competitive than many positions, particularly in the field of social work and human services. In the literature review, researchers emphasised security of tenure and income could attract individuals to the teaching profession. The finding of this section is consistent with the studies such as (Joseph and Green, 1986; Darling-Hammond, 2000; Petrin *et al.*, 2014; Darling-Hammond, 2016).

3.3. Understanding of the Teaching Mission of Health Science Education

All participants believed that a teaching career in the field of health science would be a significantly important direction than their previous career. The themes mentioned above were related to employment and financial source issues. In identifying the motivation of career-changing teachers, the researcher also found a third theme related to their understanding of a teaching career. In expressing this theme, many participants described their family situation and commitments regarding future teaching opportunities. Thus, two subthemes identified within this primary theme namely, *being a parent and teacher*, and *a bridge toward the future*.

3.3.1. Being a Parent and Teacher

Alice was a mother of twins at junior secondary school. Cathy is the mother of a five-year-old girl. Both wanted to become a teacher because of their children. By incorporating excellent parental education, both decided to study for the teachers' qualification programmes to educate their children better. Alice explained this idea by saying,

> *Being a parent is difficult, but I want to become a responsible parent. Learning to teach K-12 children provides me with the opportunity to understand what my kids are thinking, how they learn new knowledge…Many parents failed to deal with problems appropriately, such as rebellion, underage sexual activities, alcoholism, and so on. When I can complete this programme…I can understand what they are thinking. I can also assist other parents in overcoming such negative confusions.*

Cathy reinforced this idea as follows,

> *My child is still in kindergarten. Now, my mother, mother-in-law, and I can take care of my child at such a young age…If I am well-prepared as a secondary school teacher with a background in adolescent psychology, I can handle my kid's problem…I can also share my experience…with my friends…in the community…I heard about the idea of home-schooling…I do not want my kid to study at home…I want to be a teacher for my child. I am sure I will take care of and deal with some of my child's psychological and behavioural problems.*

Both Ivan and Jason shared similar ideas as a responsible father(s), Ivan said, "The general public always believe daddies are not good teachers…to upgrade my parenting skills for both my kids and kids of other good parents…I am going to learn these skills." Jason also echoed this idea, said, "Male parents can be good teachers in family as well…not just money and working machines…Gaining this qualification will help me to serve our children in society." By completing the teachers' qualification programme, the participants believed they could become well-prepared parents and teachers. As Cathy mentioned, "I am a responsible mother."

In short, the sense of being parents is one of the most important elements to influence the decisions of being teachers. In fact, most parents care about their children, as well as children of their nations and states. As a result, these groups of participants have decided to switch over their career from frontline health professionals to one of the rural communities and school districts for the sake of the next generation.

3.3.2. A Bridge toward the Future

A few participants also indicated that educating children is essential for the future of society. However, because of the current shortage of teachers, students may be forced to study in a high student-teacher ratio classroom. Benson explained this idea as follows,

> *I studied in a large classroom…I had at least 50 students. The government had enough resources for the school, but the number of qualified teachers was inadequate…However, I will become a parent, and I do not want my kids to study in such classrooms…at least I want to provide a happy classroom for them. For students with special needs, teachers may be compelled to spend extra time and energy in class.*

Donald expressed this idea as follows,

> *The government is now advocating inclusive teaching in secondary schools. In my internship school, there are at least three inclusives at each level…However, in my interned classroom, my supervisor does not know how to teach mathematics to these students with special needs…I want to help these students to be successful. If I stay in my current profession, I can make a change in the field. However, I think making a meaningful future for our students is more important.*

For secondary school students, the power of learning relies on interesting and applicable methods of teaching. During Edith, Francisco, Gillian, and Helen's coursework and internship periods, all advocated that secondary school education should focus not only on grammar and textbook knowledge but on transferable skills as well, that is, vocational skills. Considering that few secondary school students may fail to attend university, secondary schools should provide hands-on experiences.

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Edith provided the following detailed explanation, "I agree that history and geography are useful knowledge for our general education. But for practice-based learning, I advocate health science and other technical education subjects. Students can instantly apply such learning to their work afterwards. This idea inspires me to teach public health." Edith believed the secondary school should focus on vocational training. Similarly, Francisco reinforced this idea by saying, "I understand biology requires textbook knowledge. But can we add some lab requirements, hands-on practice, such as a practicum in the science museum? University professors are old-school with no contemporary senses. Learning science is extremely fun. But students should able to apply fun knowledge into their life. Otherwise, there is no fun." These two participants believed transferable skills were the primary tools to prepare for the future.

The findings of this section are reflected in previous studies that mainly dealt with external and internal impacts on the career development of pre-service and in-service teachers. In fact, although all these studies articulated different voices regarding their understanding of educating children and kids, yet they all shared the same core ideas regarding teaching students for future (Joseph and Green, 1986; Darling-Hammond, 2000; Petrin *et al.*, 2014; Darling-Hammond, 2016).

4. CONCLUSION

4.1. Implementations

First, the current study has implications for the health facilities leaders, policymakers, school leaders, and social caring providers who would be benefitted by the feedback and experiences of the potential health professionals and staff in one of the rural communities and school districts in the United States. The management, recruitment policies, retention plans, and human resources policies of rural communities are significantly different from those of urban health facilities. Career promotions and advancements are some of the features shared by the participants of the study. The findings suggest that leaders at the rural communities may connect with other leaders from the surrounding counties for potential internal and external transfers in order to retain the experienced health professionals and staff within the system. For example, as mentioned by researchers (Grulke, 2001) in South Africa, experienced professionals may apply for cross-counties transfer and exchange programmes which allows both counties to exchange the appropriate personnel between health facilities. By doing this, the experienced professionals and staff would still stay within the health system. Also, both sides received the most appropriate professionals to their system.

Second, this study provides a blueprint for school district leaders to understand how to recruit experienced frontline health professionals and staff to serve as health science educators for the next generation. In fact, health care and social caring services do not tend to heal and provide medical treatment. Instead, the ideas of positive lifestyles and appropriate living standard should be made available to young adults. Therefore, school districts and related human resource offices should establish connections and plans to recruit and retain experienced health professionals and staff, particularly experienced frontline health promoters from the industrial level, within their school systems. The results of this study offer the opinions, feedback, and voices from potential frontline health professionals and staff on how to establish such plans to attract personnel from the urban communities.

Third, the results of this study do not only cover the issues in the United States, but leaders and policymakers from rural communities and countries in Asia and Europe are also benefited. For example, currently in the United Kingdom, a large number of teachers' preparation programmes have been established in order to attract potential career switchers to enter the teaching career, particularly in the field of health science education. However, health science education may not be one of the most popular subject matters due to the requirements of educational background, work experience, and prior academic degree. This study, however, provides recommendations to school leaders, university departments, partnered secondary schools, and potential health science teachers about the understanding and plans for health science education and teaching perspective. Although the situations of each

individual country are not identical, the foundational features of SCCT (Lent *et al.*, 1994; Lent and Brown, 1996;2008) may cover a large number of possibilities and problems among health professionals and staff.

4.2. Limitations and Conclusions

Although this study provided the linkage between SCCT and the career perspective of career-changing teachers from the field of public health profession to health science education in a rural community and school district in Indiana, United States, it has limitations too. First, a qualitative inquiry using IPA (Smith *et al.*, 2009) can be too limited to be collecting data from different individuals from various channels. The comprehensive interviews can happen only once. Despite the extremely time-consuming nature of exhaustive interviews, the study may be extended into a three-stage interview to gather additional information as an explanation of how these groups of career changers understand their decisions to begin teaching as a new career direction (Dos Santos, 2016).

Second, research can later reach the stage when the career changers are starting their new professions as health science teachers in the rural school districts. In that stage, the researcher may gather data pertaining to the knowledge and experience concerning their ideas as health science teachers in the classrooms (Clark, 2007; Timsina *et al.*, 2017).

Third, the focus of this study aimed at the understanding of secondary pre-service teachers, particularly teachers from the public health profession to health science education. As primary school and kindergarten pre-service teachers' training qualification programmes enrolments are also significant, this study could not capture the voices from these groups of teachers as well (Chambers, 2002).

Fourth, pursuing a phenomenological inquiry or general inductive approach for a larger population would benefit future projects. Despite the rural community and school district in Indiana, United States, being a relatively small community, identifying the number of career-changing teachers in the field of health science education was difficult. Very few career changers in the teachers' qualification programmes are found. Establishing a better methodology and data collection could be implemented for projects at regional, national, or international levels to capture better results (McWhirter *et al.*, 2000).

This study has contributed to research practices devoted to career perspective and human resource trends in two directions. First, previous projects have explore that most of the pre-service teachers tended to switch to teaching based on their personal interests (Adams and Woods, 2015). The current study discovered that most of the pre-service teachers in a rural community and school district in Indiana, United States, tended to enter the teaching profession mainly due to the financial factors.

Second, this study has enriched the literature devoted to the gap among career-changing teachers, enrolment management of teachers' training qualification programmes, and human resource management of a rural community and school district.

Further research can take place to explore in detail the behaviours of career changers with partial teaching experiences. In this study, participants with teaching experiences were excluded. Nevertheless, administrators, counsellors, social workers, school nurses, support staff, and private tutors without teaching qualifications can offer entirely different opinions and understanding on the topic. Hence, future studies should include these groups of personnel to benefit other populations in society.

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