

Knowledge, attitudes and beliefs on disability and vocational rehabilitation of injured male migrant workers in Singapore

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Abstract

Purpose – There are over 300,000 male migrant workers in Singapore. Around 600 major workplace injuries are reported in Singapore each year, mainly in the manufacturing and construction industries. Migrant workers who are affected by workplace injuries often face many challenges, including not being able to work and thus may be repatriated to their home countries, which affects their financial status and that of their families, whom they support. This research aims to explore the knowledge, attitudes and beliefs of injured migrant workers in Singapore, towards disability and vocational rehabilitation.

Design/methodology/approach – Fifteen male migrant workers, from Bangladesh, China and India, who had acquired disabling injuries in their workplaces in Singapore, were identified through purposive sampling. They were interviewed by a male interviewer, either in Mandarin Chinese or with the assistance of interpreters for Bengali-English and Tamil-English. Interviews were recorded, transcribed, translated to English, then analysed thematically.

Findings – The interviewees generally had a pessimistic outlook on their disability, which often impacted negatively on their self-worth and familial relationships. Many of them also had little knowledge of vocational rehabilitation and had not yet seriously considered future job prospects.

Originality/value – To the best of the authors' knowledge, there are no similar studies exploring the knowledge, attitudes and beliefs of injured migrant workers in Singapore towards disability and vocational rehabilitation.

Keywords Migrant workers, Singapore, Workplace injuries, Disability, Vocational rehabilitation

Paper type Research paper

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1. Introduction

Globally, the incidence of workplace injuries among international migrant workers is high: in a meta-analysis of 7,260 international migrant workers, 47% had at least one reported occupational morbidity (Hargreaves *et al.*, 2019).

There are over 300,000 male migrant workers in Singapore who hold Work Permits (work visas specifically for semi-skilled foreign workers, in the construction, marine shipyard and process industries) issued by the Singapore Government (Ministry of Manpower, 2023). Most of them come from Bangladesh, China and India (official population numbers are not publicly available), and may feel a great pressure to provide financially for their families who remain in their home countries (Ye, 2014). Some regard the risk of workplace injuries as a part of their everyday life, and they are well aware that such injuries can cause disability or even death (Dutta, 2017). Moreover, many experience precarity and vulnerability in their employment and financial situations even if they are not injured, and more so if they are (Baey and Yeoh, 2018; Yea, 2022; Hamid and Tutt, 2019).

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In Singapore in 2018, 41 fatal workplace injuries and 596 major workplace injuries were reported, of which 247 major workplace injuries were from the manufacturing and construction industries; 59% of major occupational injuries in 2018 were from slips, trips, falls, machinery incidents and falls from heights (Ministry of Manpower, 2019). The number of migrant workers affected by these injuries is not publicly available.

The International Labour Office and the World Health Organization define disability as “any restriction or lack (resulting from an impairment) of ability to perform an activity in a manner or within a range considered normal for a human being” (International Labour Conference, 1998). The objective of vocational rehabilitation is to enable a disabled person to secure and retain suitable employment (International Labour Conference, 1998).

Globally, there are some documented examples of successful vocational rehabilitation programmes that are designed for injured migrant workers, who have additional needs compared with those who have acquired a work-related disability within their own culture and geographical area.

In the USA, a successful vocational rehabilitation programme for injured Hispanic migrant farm workers, had a focus on increasing the cultural competency of project partners to provide culturally sensitive rehabilitation plans and services, including providing information, and supporting the family of injured workers (Breeding *et al.*, 2005). In China, one vocational rehabilitation programme for injured migrant workers from other parts of the country, focused on a case-management approach, including financial counselling and providing ideas for income generation after returning home, assistance in problem-solving and family counselling (Lo *et al.*, 2008). Another such programme in China aimed at Chinese migrant workers, who had acquired severe work-related disabilities, found that teaching the traditional craft of paper cutting increased self-confidence, improved self-image, regained respect from others and increased social engagement (Mai *et al.*, 2008).

From our own interactions with severely injured migrant workers in Singapore in recent years, we are aware that some of them receive lengthy medical treatment in Singapore. Thereafter, if their injuries cause them to be unable to fulfil their occupational duties, they may go through a lengthy legal process to obtain fair financial compensation. Our casual observations suggest that such injured workers face much uncertainty while they await the outcome of their compensation claim, and may suffer psychological distress as a result (Ang *et al.*, 2017). While there are no publicly available data documenting the outcome of migrant workers' severe occupational injuries in Singapore, anecdotal evidence suggests that the vast majority are repatriated to their home countries after their one-off financial compensation claims are resolved under Singapore law.

Anecdotal evidence suggests that the majority return to their home countries with no to minimal support for physical rehabilitation and they face more uncertainty of starting a new phase of life with a disability and difficulties in earning an income (Yea, 2022). Most also have to figure their own way of supporting their families, because their higher-paying employment in Singapore has ceased. Many may be in a more difficult financial and social situation after returning home with a recently acquired work-related disability, compared to when they left in search of a better financial future in Singapore.

Noting the difficult and complex situations faced by injured migrant workers in Singapore, we were not aware of any studies that explored the thoughts and experiences of migrant workers with newly acquired disabilities from injuries sustained while working in Singapore and who would require vocational rehabilitation. Therefore, this study was conceived to inform stakeholders about how best to support migrant workers with serious injuries, through understanding the knowledge, attitudes and beliefs of such workers in Singapore, regarding disability and vocational rehabilitation.

2. Methods

We partnered with HealthServe, a Singaporean non-governmental organisation that provides health care and social assistance to male low-wage migrant workers. HealthServe's client demographic is likely largely similar to the general male migrant worker population in Singapore (official population numbers are not publicly available), with 99% of clients comprising men from Bangladesh, India or the People's Republic of China. In 2018, HealthServe gave assistance to over 430 migrant workers with injuries or salary problems ([Healthserve, 2019](#)).

We identified 15 male migrant workers who sustained one or more injuries with resultant disabilities, defined as having residual functional impairment three months post-injury and unable to engage in employment, using purposive sampling, from HealthServe's client pool, and they were invited for interviews by HealthServe staff. This number of interviewees invited was because of considerations of pragmatism and likely data adequacy ([Vasileiou et al., 2018](#)). Equal numbers of migrant workers from China, India and Bangladesh were selected to allow for comparison between these groups.

All who were invited to participate did so after being contacted by the interviewer. Interviews were held between July and November 2018.

Verbal and written explanations of the research were given individually to each participant in his native language (Mandarin Chinese, Tamil or Bengali) for the purpose of obtaining written informed consent at the start of each interview.

Each participant was interviewed individually by a Singaporean male interviewer (JJFL), a medical doctor with experience in interacting with such migrant workers. Interviews were semi-structured using a pre-prepared question guide ([Appendix](#)), with the duration of each interview ranging between 45 and 60min. Participants of Chinese nationality were interviewed in Mandarin Chinese by the interviewer, while participants of Bangladeshi and Indian nationality were interviewed in English, with the assistance of an interpreter for Bengali-English or Tamil-English and vice versa, as appropriate. All interviews were conducted on HealthServe premises in private and quiet rooms, and were audio-recorded.

At the end of each interview, each interviewee was given a S\$10 top-up on their public transport fare card as a token of appreciation, according to HealthServe's policy on the compensation of research subjects.

The interviewer wrote reflexive notes after each interview to identify potential biases that might have emerged during the interview, and also had discussions with one of the co-authors (TWY) to reduce the risk of bias in subsequent interviews ([Soedirgo and Glas, 2020](#)).

The recordings were subsequently de-identified, transcribed and analysed. The authors took a thematic analysis approach ([Braun and Clarke, 2006](#)). First, the authors individually read the transcripts, identified codes and collated the themes, using Microsoft Word and Microsoft Excel. Then, the authors discussed and reviewed the themes collectively.

Ethical approval for this research was obtained from the SingHealth Institutional Review Board (reference 2018/2406) [1]. All interpreters, transcribers and translators signed confidentiality agreements before their involvement.

3. Results

3.1 Overview

Out of 15 interviewees, one Indian interviewee spoke in an Indian language other than Tamil for a substantial portion of the interview. Because no interpreter was available for his language, there were resultant difficulties in communication. Therefore the decision was made to exclude his interview from the study, leaving a total of 14 interviews for analysis.

Tables 1 and 2 outline the profiles of the interviewees. The mean age was 39 years (range 28–50 years). All the interviewees had worked in Singapore for at least one year before their injury and had sustained their injuries 6–18 months before the interview. Interviewees from China were generally older than the Indian and Bangladeshi interviewees, and also had fewer dependents. Regarding industry, six worked in the construction sector, three in the marine sector, three in the manufacturing sector and two in cleaning and landscape management sector. Most of them had sustained spinal or limb related injuries, and two had sustained eye injuries and one a head injury.

Themes on disability and vocational rehabilitation were identified (Table 3).

3.2 Themes on disability

3.2.1 General attitude toward disability and persons with disabilities

3.2.1.1 From sympathy to empathy. Several interviewees reported prior exposure to persons with disabilities (PWDs) in their home communities. Most expressed feelings of sympathy for PWDs as they felt that PWDs faced many challenges, especially in providing for themselves.

Table 1 Backgrounds of interviewees

Country of origin	Age range (years)	Years in Singapore before injury	Monthly income range (SGD)	Household size	Months since injury
Bangladesh	28–38	1–11	420–4,500	1–8	6–18
India	34–39	4–17	1,000–1,200	5–8	6–18
People's Republic of China	42–50	1–12	1,900–2,200	2–4	6–12

Source: Authors' own work

Table 2 Industry and injuries of interviewees

Interviewee identifier	Industry	Injuries and disabilities (as interpreted from the description given by each interviewee)
BA1	Construction	Traumatic back injury with sciatica
BA2	Construction	Traumatic hip injury with residual hip pain on ambulation
BA3	Marine	Traumatic back injury with residual mechanical back pain
BA4	Construction	Fall from height with vertebral fracture and residual unilateral leg numbness
BA5	Cleaning and landscape management	Fall with dominant hand injury and residual loss of power and function
CH1	Manufacturing	Unilateral eye injury with permanent visual loss
CH2	Manufacturing	Unilateral leg near amputation with residual motor and sensory loss
CH3	Construction	Dominant hand and wrist fracture, and deformity with residual functional loss
CH4	Manufacturing	Bilateral leg fractures from crush injury with resultant leg deformity
CH5	Construction	Ankle fracture after fall from height with residual impairment
IN1	Construction	Fall with dominant hand, wrist and elbow fractures, with residual functional limitation in activities of daily living
IN2	Marine	Pressure injury to unilateral eye and ear with residual loss of visual acuity and hearing
IN4	Cleaning and landscape management	Near amputation of dominant thumb with loss of dominant hand function
IN5	Cleaning and landscape management	Traumatic head injury with residual chronic headaches

Notes: BA denotes that the interviewee is from Bangladesh; CH from People's Republic of China and IN from India
Source: Authors' own work

Table 3 Themes and sub-themes identified from the analysis of transcripts

Category	Theme	Sub-themes
Disability	Theme 1: General attitude toward disability and persons with disabilities	<ul style="list-style-type: none"> ■ From sympathy to empathy ■ Negative outlooks on disability – from provider to dependent
	Theme 2: Attitude toward their own disability – denial and deferment	<ul style="list-style-type: none"> ■ Pessimism versus hope ■ Concealment from families ■ Anticipated stigma
Vocational rehabilitation	Theme 3: Future job aspirations	<ul style="list-style-type: none"> ■ Deferred planning ■ Lack of clarity on future employment
	Theme 4: Perception of vocational rehabilitation	<ul style="list-style-type: none"> ■ Openness to idea of rehabilitation ■ Inability to make informed decisions about vocational rehabilitation

Source: Authors' own work

We feel that they probably met with car accidents, those that we do [not] know personally such as those with polio, they face discomfort [sic] from young, and we feel rather uncomfortable [sic] for them. (CH2)

Because of the pity that they felt for PWDs, the interviewees and others in their hometowns had behaved charitably towards PWDs.

[...] someone who has polio in my village, he is skilled in electric works. ... [...] when our family needs help, they will bring stuff for him to repair. He collects \$1 or \$2 from us. Our family will usually give more, like \$2 or \$5. My family knows I am working outside, and I have a higher income so they will try to help more than others. (CH4)

[...] when [I go] to temples, [I] can see these disabled people, [we] will give some food packets or whatever money that [we] can from the pocket that they can, or [we] will give some clothing [...] if they happen to come out by [our] house, then in that case [we] either give old clothes or [we] will give food again. (IN2)

After sustaining their own injuries, some of the interviewees said they had developed a deeper understanding of the struggles faced by PWDs.

[I realised] the difficulty that disabled people go through [...] even to eat and move around and all that they have problem. (BA5)

For four months only, for this [...] injury only, [I feel] very bad, [I am] not able to work, [I am] not able to earn money and support but what happens to those people who are completely disabled and cannot do anything, [I] can understand their plight now [...]. (IN2)

3.2.1.2 Negative outlook on disability – from provider to dependent. Most of the Indian and Bangladeshi interviewees had pessimistic outlooks on living with disabilities. They felt that disabilities were limiting their capacity to provide financially for themselves and their dependents.

The handicapped people cannot earn for themselves, [...] [...] it [is] like they are begging money from others and so they feel like it is an insult to them. (BA1)

This negativity seemed to stem from the perception that job opportunities for PWDs were limited and their families were financially burdened as a result. According to one interviewee:

Those who are fully disabled, they do [not or] are not able to work, they become a burden on their family. (BA3).

This was compounded by the fact that many interviewees considered men to be the breadwinners of the family. The inability to fulfil this role not only endangered the family's

financial stability and disrupted family dynamics, but it was also a source of shame for the man who had failed in his role as provider:

Back in Bangladesh, the women are dependent on the men, so if the men cannot work, you know, the whole family lives together, all the women in the family live together. So, if [I] cannot work, then financially it becomes a problem, for the family. (BA1)

If I am working then my family can be dependent on me but if I am not able to work then my wife and my children, they will also have to go to work so it [is] [...] become like a reciprocal relation become like very rare relationship [...] opposite relationship and not what it is supposed to be. (IN1)

It is [...] this is how the society is, the Bangladesh society. If you cannot work [...] it is from young [we have] been taught, that you had to support the family. And when [we are] not being able to work and support the family, then [we're] not treated well (BA4)

Some were even of the opinion that the financial and physical limitations make it impossible for them to be happy or lead meaningful lives:

For this small injury only [...] [I feel] that [I] cannot do so many things [...] look at other people, like they are having a good life, if we were also like that, we can also have a good life and enjoy different things but since they can[not], and they just feel bad they cannot have a meaningful life. (IN2)

They can[not] lead meaningful lives [...] they [will] feel upset about their plight, so they are [not] able to lead meaningful lives. (IN5)

In contrast, Chinese interviewees had a more optimistic outlook, and believed PWDs were still able to lead meaningful lives:

If disabled people have a determined heart to face their disability, they should be able to lead meaningful lives [...] There is no point always complaining about the circumstances of life, disabled people still need to move forward in life, and do what they can do. (CH1)

They are disabled, and I think they are happy. Why do I say this, it has become a reality, the disability has become a reality? There will definitely be a period of adjustment and sadness. (CH4)

3.2.2 Attitudes towards their own disability

3.2.2.1 Denial and deferment. Nine of the 14 of interviewees did not consider themselves disabled, although at the time of the interviews, all described in themselves some level of impairment which adversely impacted their quality of life and functional status. This seemed to be because some of them felt hopeful that they would eventually recover and regain normal function. When asked whether he considered himself to be disabled, one interviewee responded:

[I do not] think [I am]. [I] think God has still kept me well. [I think I] can go back to Bangladesh, [my] country, get treated there, and [I think I] can become how [I] was before and go back to work. (BA3)

Some of them assumed that the disability would be permanent and did not seem to agree with the diagnosis of impairment. One Chinese interviewee reported:

Doctors told me [...] I will not be able to work in my previous job and not able to run or do strenuous activities. ... (CH4)

However, he went on to say:

I am not considered a disabled person. I think that if possible, I wish to recover. (CH4)

On further questioning by the interviewer, he revealed his reason for not considering himself to be disabled:

I might not be able to accept. (CH4)

Some were still receiving treatment and wanted to reserve judgement until after they had completed their therapy:

Right now [I do not] feel so because treatment is still happening, so depends on after the end of treatment whether [I am] able to operate efficiently with the hand. (IN4)

Others accepted that they would likely have to live with a certain degree of physical impairment for the rest of their lives but did not feel it was severe enough to be considered a disability:

[I do not] feel that [I am] disabled, but it's just that [I cannot] work like [I] could before. Because those [...] if [I think myself] as being disabled, then what about those people who are [wheelchair-bound]? (BA4)

[I do not] think of [myself] as disabled [...] because it is not like [my] hand is completely useless. (IN1)

3.2.2.2 Pessimism versus hope. The Indian and Bangladeshi interviewees expressed feelings of pessimism, fear and anxiety about returning home and having to find ways to support themselves financially while coping with their physical impairments. They anticipated facing many limitations in searching for employment and in other aspects of daily living:

It [is] like as if [my] life has gone [...] with that right hand not working anymore what can [I] do? [I] came to Singapore thinking that [I] have you know earn money here so [we] can all have a good life but now after this injury it seems like that is gone [...] [My] family is also crying [...]. (IN1)

[I feel] that [I] cannot work anymore. [I] cannot come back to Singapore if [I go] back, and [I go] home also [I] cannot do anything there. ... [I feel] like [my] life has ended, in that sense. [I feel] that there is nothing that [I] can do, [I] cannot live a normal life anymore. [I] cannot live a life that [I] used to live before. [I] cannot run, and [...] you know, and [...] many things. (BA4)

The Chinese interviewees who were more optimistic about living with a disability also expressed a greater degree of hopefulness when discussing their expectations for the future. While they also thought that it would be challenging and some reported that they had gone through a period of grief, they had ultimately been able to adjust and had emerged with a more positive and hopeful mindset:

Although I am injured, I am physically handicapped, I do not want stress in life, I want to seek happiness. If I am stressed, I feel depressed, it will not be good for my recovery. So that [is] why I say, I should seek some happiness, and as far as possible I should [not] think of those unhappy matters. I try my best to imagine when I recover, although I am doing other work, I cannot do this work anymore, I change to something else that I can manage and earn money. This is how I am now; I try my best not to repeatedly think about things that will give me stress. That will bring no benefits for me. (CH2)

Besides my family members, they would still say, 'You are injured. what job can you do now?' Definitely, they would react in this manner. But if I worked in the fields, I could still use one hand and remove grass. Right? Although this hand is spoilt, this other hand can still move. I can use this hand instead. (CH3)

One reason for the variation in attitude between the groups of interviewees could be a difference in perception of the availability of government aid for PWDs in their home countries. Only the Chinese interviewees reported that PWDs in their communities would receive financial assistance from the government, whereas the Indian and Bangladeshi interviewees made no mention of assistance of a similar kind in their home countries. Their knowledge of government support may be why the Chinese interviewees seemed more confident than their Indian and Bangladeshi counterparts that their future needs would be taken care of:

In the village, every village chief, you can tell him about your situation, the chief will report it to the town... [...] Government, report the matter to higher authorities, and they will provide subsidies

for you... [. . .] it is common for all. As long as you are disabled, the government is able to help you. The current policies are good. (CH1)

In China, people who are injured will have compensation. (CH5)

3.2.2.3 Concealment from families. Several interviewees reported being afraid to inform their families about their injuries, for fear of causing them undue worry and sadness. Some even ended up deciding to delay the difficult conversation to after their return to their home countries and seeing their family face-to-face:

My parents do not know about this still. . . They will be sad if I told them [. . .] I only told my wife. My father is of old age, I have a grandmother who is more than 100 years old, now she is [. . .] 100. . . this year she could be 106 years old. So, as I said, they are elderly, I [am] not keen to let them know, I [am] afraid they feel stressed [. . .] if I tell them. (CH2)

[Even if I inform] them they will not be able to do anything for [me], they will only be worried more for [me]. (BA2)

When they see [me] in this state, they will first ask [me], why [did I not] tell them? [I] did not inform them because [my] daughter had exam and [my] daughter has finished and is doing well. [My] son is going to sit for exams so [I] did not want to worry [my] son. That is why [I] did not tell them [. . .] If [my] wife [were] to know, she might even commit suicide. (BA5)

Among those who had informed their families about their injuries, many had not been honest about the severity of their impairment:

I did not tell them [how serious my injuries were]. I would not tell them because if I do, they will be very worried about me [. . .] I only told them I was injured but did not explain the seriousness of my injuries. (CH5)

It appears that their fears were not unfounded, as those who had disclosed their injuries to their families described a resultant strain on their relationships, especially with their wives:

Initially for the first two and a half months, [I] did [not] tell [my] family. [I] thought that, [I feel] very sad and [I did not] say anything [. . .] but they kept actually torturing [me] and asking [me] where [is] the money, so far you [have] been sending the money, sending the money, so what happened now [. . .] around the two and a half months, they were torturing [me], and they said things like if you [do not] send the money, then I [will not] send the kids to the school, and so [I] had to tell them that this is what happened [. . .] initially [I] said that "I will send it, I will send it, I will send it", but then finally [I] said that I actually got hurt, I [cannot] send money and then they became very sad. (IN2)

My wife does not care about me, she said why were you careless? I've been with her so many years, you see [. . .] (CH1)

In China, the man is the main breadwinner. Right? Now that he is injured and not able to work in his previous job, he has to look for a new job. Economically, this has certainly impacted us [. . .]. I asked my wife and she told me she has insomnia [. . .]. she is worried about me (CH4)

3.2.2.4 Anticipated stigma. Some of the interviewees expected to be stigmatised on their return home, especially in relation to their capacity to provide financially for their families. They were worried that their physical impairments would make them less employable, which would in turn cause members of their extended family and others in their community to treat them with disdain:

In my hometown, if I go home like this, I will be laughed at [. . .] [. . .] Firstly because I went overseas and did not bring back money. Secondly because I was injured. (CH3)

If [I go] back now, and you know, if [I] can work, then it will be okay. But if [I] cannot work, and [I] cannot work for a few months, then they will start telling [me] things, unpleasant things. (BA3)

If [I] can get some money from the insurance, then maybe they can treat [me] well. But if [I] [do not] have any money, then [I] might have to separate [myself] from the family, because [we] are now living together, with the other members of the family. But in that case [we] will have to live separately from the family. (BA4)

3.3 Themes on vocational rehabilitation

3.3.1 Future job aspirations

3.3.1.1 Deferred planning. Many of the interviewees had not considered what they might do on repatriation to their home countries. When asked about what he would do on his return to Bangladesh, one interviewee gave the following response:

I [do not] think ahead. I want to go back to Bangladesh first, then think about it. (BA3)

This is perhaps because they were focusing their attention on getting as much money in work injury compensation as possible:

My mood [...] as long as the problem is not solved, I feel pressured. Right or not? They awarded me 12 points [describing disability compensation]; I feel it is too little [...] I asked the lawyer and the doctor, and they said that I should be awarded more than 20 points [...] I find it [...] hard to accept [...]. (CH4)

While this was understandable as a greater compensatory pay-out would better cushion them and their families from the financial impact of their physical impairments, it appeared to distract them from planning how they would earn an income afterwards.

Out of those who had thought about how they were going to earn an income in the future, most had considered either going back to their previous jobs or starting a business. The lack of perceived viable job opportunities might reflect their negative beliefs about disabilities and what it was like to live as a PWD:

I have not considered before. I [will not] do other tasks, because I am not skilled in other jobs and I [will not] know how to do them. (CH1)

I think I would definitely have to do other things [...] For example, do business, open a small shop. These are things that would not require much mobility. Even though the earnings would be unpredictable and probably little. (CH5)

[My] biggest concern is that [I] cannot come back to Singapore, that [I am] sure. And [...] So [I am] thinking of starting a tailor shop or [I want] to [...] buy a car and [rent it out]. (BA4)

Maybe [I have] to do some businesses, like setting up some shops or agriculture. (IN5)

Most had not seriously considered switching roles to become a dependent while their spouse took over as the breadwinner, likely due to the societal expectation within their communities that the men are to serve as breadwinners.

I asked my wife and she told me she has insomnia [...] I am injured and this will impact the finances of the family. She told me since I am not able to work in my previous job, I will have to look for other jobs. (CH4)

3.3.1.2 Lack of clarity on future employment. Many interviewees had very little clarity about their future employment, possibly because of their belief that it is difficult for PWDs to provide for their families:

If you are blind, it is very difficult to find jobs, no bosses will want to use you [...] In China, it is very discriminating, for example, if you are well, they will offer you \$200 a day, if you have disabilities, they will give you \$100. (CH1)

In addition, interviewees also expressed anxiety about successfully finding employment in their home countries due to their relatively low education levels. When asked if he would consider making the switch to a more skilled job, one interviewee said:

Because of [my] lack of [...] as in [I have not] studied much so [I feel] like those things are out of question. (IN5)

Another also shared the same sentiments and reported:

I have a high school education [...] so I might have difficulties in accepting new jobs in the future. When I return home, I am not sure of what I am able to work as to support my family. I can only do some jobs that command a lower salary. (CH4)

The reason that many of these men had chosen to go to Singapore as migrant workers was because earning a good income to support a family in their home countries was challenging. Therefore, if they could no longer work in Singapore because of an acquired disability, then they would face the prospect of returning home to a challenging financial situation with the added disadvantage of a disability.

3.3.2 Perception of vocational rehabilitation

3.3.2.1 Openness to idea of vocational rehabilitation. A number of the interviewees expressed interest in participating in courses or classes to upskill themselves:

I can only say, when I return home, I wish to learn more [...] to learn some skills. (CH4)

They [referring to HealthServe] can help me by giving me some technical classes to become a technician [...] I think it could be helpful, the skill will not only help me to do the job but also, to start a business. (BA1)

Although none of them had concrete plans for how they would upskill themselves, the fact that some mentioned retraining as a solution indicates that they might be willing to take part in vocational rehabilitation opportunities if any were offered to them. The fact that two interviewees had already gone a step further to request help from HealthServe to help them look for training courses further supports this point:

Yesterday, Mr [C] from HealthServe, yesterday another injured worker [...] and I, the both of us raised this question to Mr [C], and he is making arrangements for us to learn massage and physiotherapy. (CH4)

I have discussed this with Mr [C] and check with him if there are any massage course that I could attend so I can learn this new skill. (CH5)

3.3.2.2 Inability to make informed decisions on vocational rehabilitation. Some interviewees appeared to be unaware that re-training was available in Singapore, and believed that they would not be able to receive any type of training in skills that would be useful to them when they returned to their home countries:

The kind of skills [I] learn here in Singapore, [I] will not [...] [I] may not be able to apply it in Bangladesh [...] They do [not] build tunnels or things like that in Bangladesh. (BA1)

If [I want] to do small business when [I go] back, so what kind of skills [I need] to learn, because there is nothing much to learn, about those [...] The culture of Singapore and Bangladesh are different. So, if [I learn] a skill here, it might not be useful back in Bangladesh. (BA3)

4. Discussion

The interviewees identified that their newly acquired disabilities had caused a negative impact on their self-worth, family relationships and hope towards future employment and social status. The interviewees also reported focusing on their own short-term situation

rather than planning for their future, appearing to lack awareness of potential vocational rehabilitation programmes. The Chinese nationals' optimism, compared with the Bangladeshi and Indian nationals' pessimism, suggests the influence of social, cultural, religious and age differences in shaping their perspectives, but those were not explored in detail in the interviews. However, considering the small sample size, we cannot definitively conclude that optimism or pessimism is due to their background, and may also be attributed to the nature of their injuries, prognosis, or other situational factors. These factors could be explored in future research.

Regarding the acceptance of disability, research in the USA suggests that self-esteem, family support, chronic pain and perceived social discrimination against people with disabilities, are among the factors that influence self-acceptance of disabilities (Li and Moore, 1998). Research in Asian countries, including China, suggests that issues including shame and guilt, expectations of sons, economic status and social infrastructure are all additional factors that affect PWDs' acceptance of their disabilities (Tagaki, 2016). All those issues were mentioned by the interviewees, though they were not explored in depth. Furthermore, the differences between the socio-cultural factors in the host country where migrant workers may be viewed as outsiders (Lindgren *et al.*, 2019), and the socio-cultural factors in the home country, would influence the injured migrant workers' adjustment and adaptation to their disabilities before and after repatriation.

Adapting to their disabilities and planning for the futures of such injured migrant workers are likely to be complicated by the need to negotiate the complexities of labour migration. Firstly, migrant workers in Singapore would likely have different personal coping strategies determined by their diverse cultural backgrounds, including their countries of origin and any sub-cultural backgrounds within those countries (Wong and Wong, 2006). Secondly, regarding social supports, migrant workers on Work Permits in Singapore cannot have their wives, parents or children present in Singapore; a few may have a brother or a male relative in Singapore; some may have close friends or supportive colleagues in Singapore, but others may not. As demonstrated in the interview findings, some injured migrant workers concealed their injuries or the extent of their injuries from their immediate families in their home countries, thus adding complexity to the issue of receiving family support. Thirdly, migrant workers are likely to have issues of accessibility to health and social welfare supports that might usually be accessible to non-migrants, and any such access might be complicated by language barriers (Dutta, 2017, Ang *et al.*, 2017, Ang *et al.*, 2020). Fourthly, many migrant workers in Singapore are already in precarious and vulnerable employment and financial situations even before they are injured (Baey and Yeoh, 2018, Hamid and Tutt, 2019, Yea, 2022), in addition to psychological distress, loneliness, isolation, discrimination, food insecurity and dire living conditions (Farwin, 2020, Ang *et al.*, 2017, Hamid and Tutt, 2019), so that having to adapt to a new disability becomes even more challenging. Fifthly, the interplay between the above factors influences how migrant workers cope with day-to-day stressors (Farwin, 2020), and likely further complicates injured migrant workers' coping with and adaptation to their newly acquired disabilities. Finally, it could be expected that after repatriation to diverse geographical and cultural locations, further adaptation would need to occur, with varying family and social support. The challenges of adapting to the new disability in the home country would be in addition to the usual challenges faced by a non-injured migrant worker returning home after some years away and having to reintegrate into new familial, social and occupational roles (Segal, 2016). Therefore, when planning for the vocational rehabilitation for migrant workers, it will also be important to consider these additional challenges posed by international labour migration.

There are several limitations to this study. Firstly, the findings from four or five interviewees from each of three countries cannot be necessarily generalised to represent the entire heterogeneous population of migrant workers in Singapore, or indeed, any other host country. We recognise some element of selection bias because all the interviewees were

receiving some support from a non-governmental organisation, whereas any injured migrant workers who were not receiving such support may have different, and hypothetically more negative, perspectives.

Secondly, assuming that adaptation and adjustment to a newly acquired disability is a dynamic process (Marini and Villarreal, 2023), one interview of an hour or less would only capture the thoughts and emotions of each interviewee at one point: our findings may not be representative of the perceptions of injured migrant workers in other stages of adaptation and adjustment. Future longitudinal research would be ideal to explore adaptation and adjustment after some months or years, including after repatriation to their home countries.

Thirdly, it is possible that power dynamics that may have influenced or even biased the interviewees and their responses: the interviewer, a Singaporean and a doctor, is in a position of perceived or actual power compared with an injured migrant worker interviewee. To reduce the power imbalance, the interviewer obtained informed consent in each interviewee's native language, as described in the methodology, according to standard ethical guidelines followed for this study. Also, as described in the methodology, the interviewer practiced active reflexivity (Soedirgo and Glas, 2020) to reduce bias. Conversely, if the interviewer had been from within the migrant worker communities, that would represent a more participatory model of research and community engagement (Tembo *et al.*, 2021), resulting in responses that may have been different.

Future research would be valuable to explore associated issues in more depth. Familial and socio-economic-cultural factors may affect the interviewees knowledge, attitudes and beliefs, including religious or spiritual beliefs, the family's financial status and the socio-economic status of the family's community, including whether it is rural or urban. Also, underlying psychological distress and pre-existing financial indebtedness affects injured migrant workers' mental health (Ang *et al.*, 2017). The severity and prognosis of their injury and disability, the duration and perceived unpleasantness of current compensation claims process and the amount of current medical and social support, may be among the many factors that affect their perceptions of their future, including the hopelessness and pessimism that some interviewees revealed.

5. Conclusion

While adapting and adjusting to a newly acquired disability is generally challenging, international migrant workers have additional challenges of firstly having to adapt while in the host country with limited family support, and many socio-cultural barriers. Subsequently, they are likely to have to undergo further adaptations when they return to their home countries. All these issues should be taken into account when supporting injured migrant workers, and also when designing vocational rehabilitation programmes for this population.

This study contributes to the understanding of these complex intersecting issues in injured international migrant workers in a host country, such as Singapore, and it should be helpful to both host and home governments when formulating policies regarding injured migrant workers, to employers in managing injured migrant workers and to any non-governmental organisations or individuals that would want to assist this population.

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- 1 Before and during the data collection phase of this study, one of the authors (TWY) was an employee of SingHealth.

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Appendix. Guiding questions for interview on disability and vocational rehabilitation

Section 1: Demographic information

- Name
- Nationality
- Age
- Highest level of education
- Religion
- Industry
- Occupation (brief job description if necessary)
- Month and year that you first started working in Singapore
- Month and year that you got injured (for an injured interviewee)
- Number of times employed in Singapore
- Average monthly income
- Number of dependents in home country

Section 2: Questions on injury, disability and vocational rehabilitation

Questions on injury

- Duration of time in Singapore before injury
- Duration of time in Singapore after injury
- Duration of time between injury and seeking help at HealthServe
- Total number of years worked in Singapore
- Date of injury
- Cause of injury
- Type of injury
- Body part injured
- How has the injury affected your daily life? Prompt: activities of daily living (dressing, walking, eating, going to the toilet, communicating), emotions, relationships, communication

Questions on disability

- Do you know anyone who is disabled in your own country? How did he/she become disabled (elicit not only physical cause, but also fate/spiritual cause)?
- What do people in your family think about disabled people?
- What do people in your community think about disabled people?
- Do you consider yourself disabled now? Why or why not?
- Have our views on disabled people changed since you had your injury? Why or why not?
- Even though being disabled is a negative thing, are there any positive results from it? If yes, then please describe.

Questions on vocational rehabilitation

- Can disabled people be happy? Why or why not?
- Can disabled people live meaningful lives? Why or why not?
- Can disabled people work to financially support their families? Why or why not?
- What are your biggest concerns when you return home? How will you overcome them?
- Have you told your family that you have been injured? If yes, what were their reactions? If no, why not?
- What do you expect your family's/neighbours' reaction to you when you arrive home and they see that you are injured? Why do you expect that?

- How do you think you will support yourself and your family financially when you return home? What are the biggest challenges? How will you overcome them?
- Will you be able to do the same job when you return home? If no, then what do you plan to do to earn money?
- If you are no longer able to engage in your previous occupation, what do you plan to do?
- Would you be willing to take up a different occupation when you return home?
- If yes, what are you considering and how would you prepare?
- If yes, how could you start preparing while you are still in Singapore? What skills would be useful for you to learn?
- If yes, how could you prepare for a new occupation after you return home?
- If not, why? What would you need to overcome that?
- What do you think HealthServe could do to help you and people like you to financially support your family after you return home?

Source: Authors' own work

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