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Youth Sector Engagement Group

The State of Youth Health in Ghana's Construction Industry

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Overview

This brief presents findings from a mixed-methods study that explores the state of physical health among young workers (aged 18-35 years) in Ghana's construction industry. The study focused on workers in the three largest urban areas in Ghana (i.e., Accra/Tema, Kumasi, and Takoradi/Cape-Coast). Interviews and a focus group discussion with health experts, employers, and young workers revealed the most common physical health problems to be stomach problems, skin problems, musculoskeletal disorders, sexual weakness, hypertension, and heart problems. A survey of 445 young construction workers revealed a high prevalence of musculoskeletal disorders and skin-related problems. Poor physical health significantly contributed to reduced work ability of young construction workers, days away from work, and possibly poor mental health. The research highlights the need to give proper attention to the management of youth health in the construction industry.

Introduction and background

Research shows that the rapid and dynamic pace of work, the high-risk nature of tasks, the use of harmful materials and dangerous equipment, and other issues such as heavy workload expose the construction workforce to significant physical risks which significantly affect their physical health. This is particularly severe in the case of young construction workers because they are still undergoing physical, emotional, mental, social, and professional development[1]. Many young construction workers are either seasonal workers or immigrants with low levels of education, training, and experience, and have little understanding of safety issues. This makes them less compliant with safety procedures and more likely to take unreasonable risks[2]. Also, due to the stage of their physical development, many young workers have higher respiratory and metabolic rates per unit of body weight than older adults, and this makes their bodies absorb more toxins and undergo extreme reactions in the process. Young people are therefore more likely to suffer impairment of their hormonal systems, reproductive systems, and brain functions[3].

The pervasiveness of the problem of poor physical health among young construction workers notwithstanding, current research is limited to the case developed countries such as Australia, the UK, and the US. Very little is known about the case of young construction workers in the Global South[1]. This situation can potentially make it difficult to develop physical health and safety interventions that are appropriate for the Global South context[4].

It is crucial to prioritize any issues that affect the health of young people in the Global South because almost 90% of young people under the age of 24 years reside in that part of the world[5]. By giving attention to the health of a significant group of people (i.e., young construction workers in the Global South) this study has the potential to provide insights that can help accelerate construction safety performance towards achieving the "zero harm" goal[6] and Sustainable Development Goal (SDG) number 3 (good health and well-being).

As is the case in many Global South countries, Ghana's construction industry is attracting an increasing number of young people[7]. Both young male and female workers below and above the legal working age are entering the construction industry at a faster rate than older workers[8]. This is being facilitated by industry conditions such as a high number of small construction firms; the project-based nature of construction work; extended procurement chains; multiemployer worksites; high worker turnover and the extensive use of casual and inexperienced workers[9]. Within the last decade, the construction industry in Ghana has received both foreign and local investment to tackle youth challenges such as unemployment, inadequate technical training, and poor health and safety[10]. Ghana's construction industry is therefore an ideal case for exploring in-depth the subject of physical health among young construction workers in the Global South.

Aim

The aim of this study was to explore the physical health condition of young construction workers in Ghana's construction industry. Attention was given to both on- and off-site construction professionals,

1 Also known as developing countries, lower-and-middle income countries (LMIC), or the third world.

artisans, apprentices, and academic trainees. This study addressed the following research question:

What physical health conditions exist among young construction workers?

Methodology

A mixed-methods approach was used to address the research question. The first phase began with a comprehensive review of both academic (e.g., research journal publications) and non-academic literature (e.g., industry reports and policy documents) to gain an understanding of the current state of research on youth health and safety in the construction industry. Subsequently, qualitative data was collected through in-depth interviews with different stakeholders, followed by an expert focus group discussion[2]. The second phase involved a quantitative survey of was 445 young people working in various trades and professions in different sectors of the construction industry. Questionnaires were administered face-to-face and online. After the quantitative survey, 459 questionnaires were retrieved for analysis. A total of 445 useful questionnaires were retained for use. Descriptive statistics were used to describe the study sample and the overall response pattern on study measures. The results from quantitative analysis were supported by qualitative findings.

Key findings

Characteristics of the survey respondents

Respondents' age ranged from 18 to 35 years, with the mean age of 26.3 years (SD = 5). Characteristic of the construction industry's male-dominated workforce in many countries, majority of the survey respondents were male (94.4%). Almost a third of the respondents reported being in a partnered relationship, and under 1% reported their marital status as either separated or divorced. More than half of the respondents (61.8%) reported having dependents, and the average number of dependents reported was two. The majority of respondents (97%) reported having received some form of formal education.

Physical health at baseline

Most of the respondents (84.7%) reported having good physical health. About one-third of the respondents (n=127) however indicated that they had at least one existing condition or had suffered some significant physical ailments prior to entering into construction. The main conditions reported were stomach problems (41.7%), skin problems (17.3%), sexual weakness (15.0%), hypertension (11.0%), heart problems (7.9%), and physical disability (7.0%). No respondent reported ever having a stroke.

Work-related physical health conditions and outcomes

Almost all (99.6%) of respondents indicated that they had experienced a physical health problem because of their work in construction. Problems related to the chest, eyes, skin, ear, sinus, migraine, allergies, and musculoskeletal disorders (general body pains, waist pain, back pain, joint pain, feet/leg pain, broken bones), and fatigue were the most prevalent physical health conditions. Panel 1 provides an overview of the specific self-reported work-related physical health conditions and outcomes.

The main physical health conditions reported by the majority (above 50%) of workers were general body pains, extreme tiredness, skin abrasions and cuts, waist pain, back pain, and joint pain. This indicates that the majority of the workers had multiple physical health conditions as a result of the work in construction. Hearing problems and broken bones were the least reported problems.

When construction and pre-construction prevalence levels are compared, three conditions whose prevalence levels increased dramatically among workers are general body pains (74.6% vs. 0.4%), skin problems (71.7% vs. 4.9%), and allergies (25.8% vs. 0.2%). Although more than a quarter of the respondents reported that they

2 In September 2020, semi-structured in-depth interviews were conducted with 21 purposefully selected participants (e.g., construction workers, construction professionals, employers, health experts, researchers, etc.). Following this, a focus group comprising eight experts in youth health and safety was conducted to validate interview results, and to obtain further insights to augment the interview findings. Data from the interviews and focus group was thematically analyzed and used to develop a survey questionnaire for collecting quantitative data.

had suffered eye-related problems, only a few reported having poor eyesight as a result (26.5% vs. 3.4%). Incidents of ear-related problems and their attendant adverse consequences remained low among the respondents (8.4% vs. 1.8%).

Almost one-third of the respondents reported that their physical health had some limitation on their engagement in moderate activities such as lifting items. One in five of the respondents reported that their physical health limited climbing stairs, ladders, and other heights.

The focus group discussion revealed that the poor physical health conditions suffered by young construction workers were largely because many of them tend to be "casual workers who are mostly inexperienced and lack the pre-requisite training for ensuring their personal safety at work". Long working hours and falls from heights were also cited as common causes of extreme fatigue and musculoskeletal disorders, respectively.

In addition to the prevalence rates for the different poor physical health conditions being of significant concern, a participant from the health group indicated that the prevalence rates and impacts of poor physical health among young construction workers "are bound to worsen in later years because of the poor lifestyle of the general youth population", and specifically "the poor eating habits and help-seeking behaviour" of young construction workers.

Discussion and implications

The findings of this study confirm that the pressures that young people face in construction has multiple physical effects on their bodies. Musculoskeletal disorders and injuries are the most prevalent physical health conditions suffered by young construction workers in Ghana's construction industry. The prevalence levels of poor physical health conditions reported in this study are higher than those reported in recent studies conducted in construction industries of other countries in the Global South[11].

Panel 1: Work-related physical health conditions and outcomes (n=445)

Variable and category	N	Summary statistic (%)
Health condition*		
General body pains	332	74.6
Extreme tiredness	330	74.2
Skin abrasions and cuts	319	71.7
Waist pain	270	59.3
Back pain	259	58.2
Joint pain	247	55.5
Migraine	206	46.3
Sinus problems	195	43.8
Feet/leg pain	181	40.7
Chest pain	132	29.7
Eye problems	118	26.5
Allergies	115	25.8
Broken bones	43	9.5
Hearing problems	38	8.4
Health outcome		
Hearing status		
Poor	8	1.8
Fair	23	5.2
Good	148	33.3
Very good	266	59.8
Sight status		
Poor	15	3.4
Fair	59	13.3
Good	147	33.0
Very good	224	50.3
My health limits moderate activities (lifting items, etc.)	125	28.1
My health limits climbing stair, ladders, and other heights	89	20.0

Note: * Health conditions are arranged in descending order of prevalence. Pre-existing conditions are included in prevalence levels. Percentages does not sum up to 100 because some respondents had multiple conditions. Frequencies shown are for respondents answering "Yes" to having each respective health condition.

The results are however consistent with prevalence levels in the construction industries of developed economies such as the USA[12] and Australia[13]. Considering that it is common for many construction workers to underreport their injuries, the possibility exists that prevalence levels of poor physical health among young construction workers reported in this study and others could be worse[3].

The physical health conditions reported indicate that young construction workers might usually be subjected to safety hazards emanating from a lack or non-use of proper protective clothing, use of dangerous equipment and machinery, working in trenches and at high levels, working near or operating machinery, and working with sharp objects, abrasive or flammable substances[4]. With many Ghanaian construction employers not providing the necessary tools and equipment for workers, and the construction industry's overreliance on "labour intensive methods", it is also highly possible that young workers could be exposed to ergonomic hazards originating from lifting and carrying heavy loads, putting down objects, working with old or poorly designed equipment, assuming awkward postures, and undertaking activities that require fast or repetitive movements[5]. These conditions, if left unchecked, can cause result in high death rates among young people[14].

Due to poor work-related physical health conditions, between 1 to 3 out of 10 workers had difficulty engaging in moderate activities such as climbing and lifting. Since these are typical activities done by almost all construction workers,[15] failure to fulfill them may make construction workers struggle with simple work tasks, deal with constant pain, and engage in absenteeism, thus ultimately making them unemployable. Having to grapple with reduced "work ability" and its potential consequences of stigma and poor-quality life can be secondary psychosocial risk factors which may lead to diminished mental health and ultimately suicide[6].

Conclusion and recommendations

Construction work is an important source of livelihood for many young people. Nonetheless, engaging in construction can exposes young to intense physical strain, leading to multiple physical health conditions. The high prevalence levels of the identified physical health conditions and the likelihood of potential outcomes such as reduced work-ability and self-harm indicate the need to pay critical attention to the problem of poor physical health among young construction workers. It is also necessary to improve health and safety literacy of young construction workers considering that a substantial proportion of the respondents were not cognizant of the symptoms of poor physical health.

To extend this study, there is a need for further research to answer the following questions: What are the effects of each of the identified physical health conditions on the health outcomes and well-being of young construction workers? What specific physical risk factors give rise to the physical health conditions identified and how can they be mitigated? How much does poor physical health among young construction workers cost construction businesses and the economy?

Additional information

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Ethics approval (No.: 002/20) for this research was granted by the Ethical Review Committee (ERC) of Participatory Development Associates (PDA).

The full report is available at www.pdaghana.com. All data used in the study and any additional information from this study may be obtained by contacting Samuel Frimpong at s.frimpong@unsw.edu.au.

3 See Dong et al. 2011

4 See ILO 2018

5 See Boadu et al. 2020 and ILO 2018

6 See Turner and Lingard 2020

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