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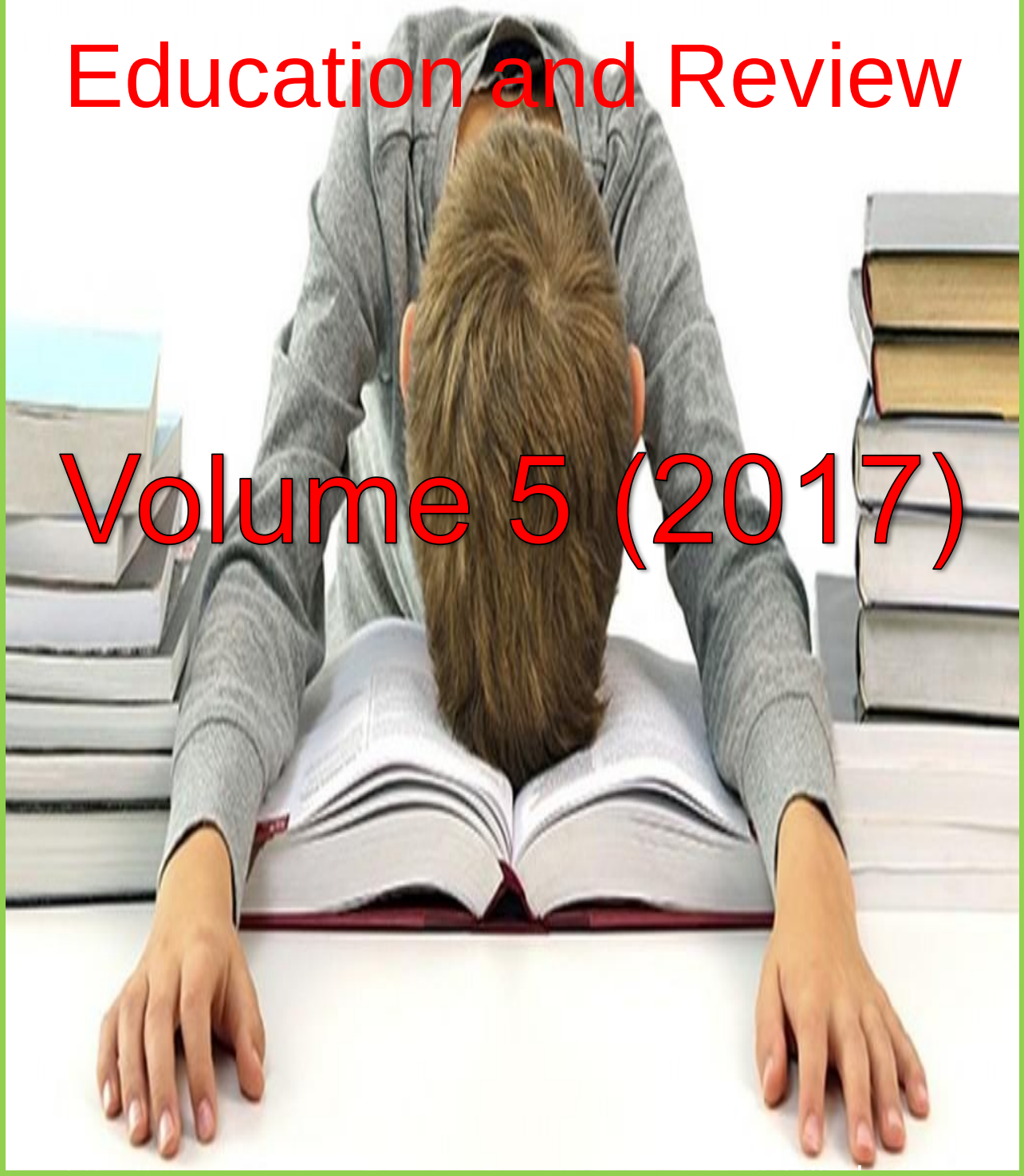

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Full Length Research

Basic Facilities in India for Rural Development*

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Rural Development has been an integral part of nation's socio-economic development. It is one of the most important factors for the growth of the Indian economy. In India, out of total population of 121 crores, 83.3 crores live in rural areas (Census of India, 2011). Thus, nearly 70 per cent of the India's population lives in rural areas. These rural populations can be characterized by mass poverty, low levels of literacy and income, high level of unemployment, and poor nutrition and health status. In order to tackle these specific problems, a number of rural development programmes are being implemented to create opportunities for improvement of the quality of life of these rural. The policy and programs of rural development aim at alleviating rural poverty, generating employment and removing hunger and malnourishment accompanied by the enrichment of the quality of human life. This article overviews the role and function of the Government and its' programmes for rural development in India.

Key Words: Rural Development, Basic Facilities, Development Project

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INTRODUCTION

Rural development in India has been subjected to a lot of experimentation. The problem of rural development, however, is not merely one of development of rural areas but of the development of rural communities to dispel ignorance and poverty and assist the process of creating a self-reliant and self-sustaining, healthy modern little communities. Rural development aims at improving rural people's livelihoods in an equitable and sustainable manner, both socially and environmentally, through better access to assets (natural, physical, human, technological and social capital), and services, and control over productive capital (in its financial or economic and political forms) that enable them to improve their livelihoods on a sustainable and equitable basis.

India is a country of villages and about 50% of the villages have very poor socio-economic conditions. Since the dawn of independence, concerted efforts have been made to ameliorate the living standard of rural masses. So, rural development is an integrated concept of growth and poverty elimination has been of paramount concern in all the consequent five year plans. Rural Development (RD) programmes comprise of following:

- Provision of basic infrastructure facilities in the rural areas e.g. schools, health facilities, roads, drinking water, electrification etc.
- Improving agricultural productivity in the rural areas.
- Provision of social services like health and education for socio-economic development.
- Implementing schemes for the promotion of rural industry increasing agriculture productivity, providing rural employment etc.
- Assistance to individual families and Self Help Groups (SHG) living below poverty line by providing productive resources through credit and subsidy.

Indira Awaas Yojana (IAY)

Housing is a fundamental human need; it is a basic requirement for human survival as well as for a decent life. Housing is not just for individual families alone, it is for the community.

IAY provides an opportunity for reinventing people as builder and promoting a kind of "revenue participation", with government participation in the indigenous process of the people to house them.

Indira Awaas Yojana is essentially a public housing scheme for the houseless poor families and these living in dilapidated and kutcha houses with a component for providing house site to the landless poor as well. The scheme is designed to enable Below Poverty Line (BPL) households identified by the community through Gram Sabhas following criteria suggested for such identification from time to time, to build their houses or get house sites with financial and technical assistance from the government.

Convergence

(i) Toilet: For all IAY houses, construction of toilets under Nirmal Bharat Abhiyan (NBA) is mandatory. The state government should put in place a system which facilitates the, covering fund flows, accounting, reporting etc. It should be ensured that the beneficiary has to approach only one agency for the IAY and NBA components.

(ii) Drinking Water: Potable drinking water should be provided to all IAY households by converging the state and central government programmes relating to drinking water. Also drinking water wells can be constructed using MGNREGA for an individual house or a group of houses.

(iii) Electricity: Electrification should be provided under Rajiv Gandhi Grameen Vidyuti Karan Yojana (RGGVY) or any state, scheme and in areas where there is no electricity, solar lights should be provided.

(iv) Land Development: The lands of individual beneficiaries or habitats may be developed using MGNREGA. The scheme can also be used for soul conservation and protection, bio-fencing, planting of avenue trees, construction of playgrounds etc.

(v) Connectivity: Connectivity may be provided in the form of paved pathways, road using MGNREGA and relevant state schemes.

In order to bring about convergence a state level meeting maybe held exclusively for the purpose by the Chief Secretary by January of every year in which all the state level departments / agencies responsible for different schemes maybe called and an action plan for convergence prepared to ensure that there is automatic and simultaneous convergence in favor of IAY beneficiaries, as they all belong to families in real need. The Gram Panchayats have the most critical role to play in the actual implementation of the scheme.

Jawahar Rozgar Yojana (JRY)

By merging the two erstwhile wage employment programme – National Rural Employment programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) the Jawahar Rozgar Yojana (JRY) was started with effect from April, 1, 1989s on 80:20 cost sharing basis between the centre and the States. The main objective of the Yojana was additional gainful employment for the unemployed and under-employed persons in rural areas.

The intention of the government in launching this new anti-poverty scheme is also to increase wage employment in rural areas. JRY was launched with the objects like:

i. To generate additional gainful employment for the unemployment and underemployed persons, both men and women from the rural areas.
ii. To create the productive community assets for direct and continuing benefits to the poverty groups and for strengthening rural, economic and social infrastructure.

Twenty Point Programme (TPP)

Twenty Point Programme initiated in the year of 1975 and restructured in 1982, 1986 and again in 2006. The TTP consists of 20 points and 66 items. Main provisions of the schemes:

1. Garibi Hatao (Poverty Eradication)
2. Jan Shakti (Power to People)
3. Kisan Mitra (Support to Farmers)
4. Shramik Kalyan (Labour Welfare)
5. Khadya Suraksha (Food Security)
6. Sabke Liye Awaas (Housing for All)
7. Sudh Pey Jal (Potable Drinking Water)
8. Jan Jan Ka Swasthya (Health for all)
9. Sabke Like Shiksha (Education for all)
10. Mahila Kalyan (Women Welfare)
11. Bal Kalyan (Child Welfare)
12. Samajik Suraksha (Social Security) through Rehabilitation of handicapped and orphans and welfare of aged.

1. Integrated Rural Development Programme (IRDP) (1980)

The Integrated Rural Development Programme (IRDP) is a benevolent social welfare measure adopted by the Central Government of India and implemented through the agency of different state governments. The idea is to help the overall development of every family in any village in India, by raising its Standard of Living, by making the individuals (particularly those who are economically backward or live below poverty line) self sufficient.

2. Employment Assurance Scheme (EAS)

The Employment Assurance Scheme (hereinafter mentioned as EAS) launched on October 1993 in some parts of the country was extended to all rural Panchayats Simites in 1997-98. It envisages creating additional wage employment opportunities at the time of acute shortage of wage employment through manual work undertaken for creation of infrastructure by the rural poor living below the poverty line.

3. Jawahar Gram Smridhi Yojana

Jawahar Gram Smridhi Yojana (hereinafter called JGSY). JSGSY was launched on 1st April, 1999 by restructuring the earlier JRY to ensure employment of rural infrastructure and generate wage employment for unemployed rural poor.

4. Swaran Jayanti Swarojgar Yojana (SGSY)

SGSY was launched on 1st April, 1999 by amalgamating erstwhile. Integrated Rural Development Programme, Training Rural Youth for Self Employment and primarily to improve the family income of the rural poor. It covers all aspects of self employment and beneficiaries assisted through credit-cum subsidy programme.

5. Schemes for Handloom Weavers and Artisans

The office of Development Commissioner for Handlooms, Ministry of Textiles extends financial assistance under a central plan scheme, the work shed-cum-housing scheme which is having subsidy, loan and beneficiaries contribution components.

6. National Rural Health Mission

The government has recently launched National Rural Health Mission which seeks to provide effective health care to rural population including unorganized sector labourers throughout the country.

7. Antoyoday Ann Yojana

The scheme launched in 2001, this scheme was intended to create food security in India in the following of five years. It was targeted to the poorest of poor.

8. Training Rural Youth for Self Employment (TRYSEM)

The scheme aimed at providing basic technical and entrepreneurial skill to the rural poor in the age group 18-50 years enable them take up income generation activities. The scheme had been merged into Swarnajayanti Gram Swarojgar Yojana (SGSY) with IRDP, DWCRA etc. from April 1999.

9. Mahila Samridhi Yojana

In October 1993, the Government of India launched a scheme called Mahila Samridhi Yojana (MSY). This is central sector plan scheme implemented through the network of post offices in rural areas. MSY encourages every rural adult common to open an MSY account in her village post office in which she may deposit her saving for an amount up to Rs. 300 per year, with a one year lock in period in which government contribution is 25%.

10. Vande Matram Scheme

This is a voluntary scheme wherein any obstetric and gynecological society of India and private clinics can volunteer themselves for providing safe motherhood services. The aim of the scheme is to reduce the maternal mortality and morbidity of the pregnant and expected mothers by involving and utilizing the vast resources of specialist / trained workforce available in the private sector. The scheme intends to provide free antenatal and post natal check up, counseling on nutrition, breastfeeding through public private partnership etc.

11. Bharat Niraman Programme (2005)

The government of India launched a time bound plan under Bharat Nirman in 2005 for implementation during the four year period 2005 to 2009. The following activities are being taken up under this programme:

(1) Creation of additional irrigation potential.
(2) Electrification of uncovered villages of 2009.
(3) To construct houses for rural poor.
(4) Every village to be connected by telephone.

12. Sampoorna Grameen Rojgar Yozana

Sampoorna Grameen Rojgar Yozana was launched w.e.f. September 2011; the scheme aims at providing wage employment in rural areas and also food security, along with the creation of durable community, social and economic assets.

13. Pradhan Mantri Gramodaya Yojana

Pradhan Mantri Gramoday Yojana was introduced in 2000-01 with the objective of focusing on village level development in five critical areas, i.e. health, primary education, drinking water, housing and rural roads, with the overall objective of improving the quality of life of people in the rural areas.

14. Samagra Awaas Yojana

Samagra Awaas Yozana has been launched as a comprehensive housing scheme in 1999-2000 on pilot project basis in one block in each 25 district of 24 states and in one Union Territory with a view to ensure integrated provision of shelter, sanitation and drinking water.

15. Rural Landless Employment Guarantee Programmes (RLGGP) (1983)

This scheme based on providing employment to landless farmers and labourers.

16. Pradhan Mantri Gram Sadak Yojana (PMGSY)

PMGSY launched in December 2000 aims to provide all weather connectivity to al the eligible unconnected rural habitations. It provides employment to rural poor in addition to systematic upgradation of the existing rural road network.

17. Mid Day Meal Scheme (MDMS)

In response to a court case, in 2001 the Supreme Court of India directed state governments to provide mid day meal for primary schools, setting in place a statutory right.

The provision of cooked mid-day meals in primary schools is an important step towards the right to food. Indeed, mid-day meals help to protect children from hunger (including "classroom hunger", a mortal enemy of school education), and if the meals are nutritious, they can facilitate the healthy growth of children. Mid-day meals also serve many other useful purposes.

The scheme has since been expanded across India, of course, such a scheme cannot be expected to eradicate malnutrition in India; indeed, the attendance of children at primary school has not increased beyond 50% in many parts of the country.

18. Food for Work Programme

Food for work programme was initially launched w.e.f. February 2001 for five months and was further extended. The programme aims at augmenting food security through wage employment in the drought affected rural areas in eight states. The workers are paid the balance of wages in cash, so that they are assured of the notified minimum wages. This programme stands extended up to March 31, 2002 in respect of notified "natural calamity affected districts."

The two other major food security programmes are the Mid Day Meal Scheme (MDMS) and the Integrated Child Care Development Scheme (ICDS).

19. Aajeevika Skills 2009:

Its origins in the 'Special Projects' component of the Swarnajayanti Gram Swarozgar Yojana (SGSY). Besides helping to reduce poverty, it rides on the hopes and aspirations for a better quality of life in large sections of the rural poor. Ajeevika Skills aims to skill rural youth who are poor and provide them with jobs having regular monthly wages at or above the minimum wages.

20. Mahila Kisan Sashaktikaran Pariyojana 2009:

To improve the present status of women in Agriculture, and to enhance the opportunities for her empowerment, Government of India has announced "Mahila Kisan Sashaktikaran Pariyojana" (MKSP), as a sub component of the National Rural Livelihood Mission (NRLM) and decided to provide support to the tune of Rs. 100 crore during 2010-11 budget.

21. Integrated Programme for Old Persons 2008

The main objective of the scheme is to improve the

quality of life of the older persons of providing basic amenities like shelter, food, and medical care and entertainment opportunities and by encouraging productive and active ageing through providing support for capacity building of government and non government organization, Panchayati Raj Institutions / Local Bodies and the community at large.

Assistance under the scheme will be given to the Panchayati Raj Institutions / Local Bodies and eligible non-government voluntary organization for the following purposes:

(i) Programmes catering to the basic needs of older persons particularly food, shelter and health care to the destitute elderly.
(ii) Best interests of old persons etc.

Programmes under the Scheme

(i) Maintenance of old age homes.
(ii) Maintenance of Respite Care Homes and Continuous Care Homes.
(iii) Running of Multi Service Centres for Older Persons.
(iv) Maintenance of Mobile Medical Unit.
(v) Running of Day Care Centres for Alzheimer's disease Patients
(vi) Physiotherapy Clinics for Older Persons
(vii) Disability and hearing aids for older persons
(viii) Mental Health Care and Specialized Care for the older persons.
(ix) Helpline and counseling centre for old persons or any other activity which is considered suitable to meet the objective of the scheme.

CONCLUSION

Rural Development is the main pillar of Nation's Development. In spite of rapid urbanization, a large section of our population still lives in the villages. Ministry of Rural Development is implementing a number of programmes aimed at sustainable holistic development in rural areas. The thrust of these programmes is on all round economic and social transformation in rural areas, through a multi-pronged strategy, aiming to reach out to the most disadvantaged sections of the society.

There is a general feeling that despite of huge allocations made by Government of India through Central Schemes//Centrally Sponsored Schemes, the developments in basic infrastructure and amenities/facilities are not perceptible, especially in rural areas of the country. Further, the standard of living of the people is still very poor and the employment opportunities to the young people are still considered to be very limited and inadequate.

Since, most of these Schemes are in operation for a pretty long time. Though the Government has taken several initiatives i.e. legislative measures and social security schemes / programmes to improve the lot of this segment of working class, still the coverage is miniscule. The need of the hour is the convergence of all development interventions at the grass-root level so as to enhance necessary infrastructure in the backward regions.

REFERENCES

- Aggarwal, P.K. et al. *Land Use Analysis and Planning for Sustainable Food Security,* Creative Commons Pub., 2011, p. 102.
- Bhatt C. Shankar Lal, *Land and People in Indian States,* 36 Vol. Gyan Publication, 2005, p. 196.
- Chhabra, T.N. and R.K. Suri, *Dynamics of Industry Relations*, 2007, p. 388.
- Gupta Meenakshi, *Labour Welfare and Social Security in Unroganized Sector,* 2007, p. 100.
- Indira Awas Yojana Guidelines, Government of India, Report of Rural Development, New Delhi, June 2013, p. 2.
- International Journal of Human Development and Sustainable, Vol. 14, 2011, p.70.
- Giri,V. Mohan, *Emancipation and Empowerment of Women,* Gyan Pub. House, No. 1, 1998, p. 71. Vohra, Ranbir, *The Making of India: A Political History,* 2012, p. 390.
- Jain, L.C. *Decentralisation and Local Governance*, 2005, p. 149.
- John, K., *Social Security for Unorganized Labourin India,* Abhinav Journal, Vol. 2, Issue No. 2, 2014.p 4
- Karalay, G.N., *Integrated Approach to Rural Development*, 2005, p. 264.
- Laxmi Kanth, *Public Administration*, 2012, p. 525.
- Laxminath, M., *Governance in India,* 2012, p. 175.
- Report Govt. of India, Ministry of Information and Broadcasting, 2006, p. 75.
- Sharma Neeraj, *Anti Poverty Programmes in Rural India*, 2010, p. 81.
- Singh, Shiva Kant, *Rural Development Policies and Programmes,* 2002, p. 64.
- Tyagi, B.P., *Labour Economics and Social Welfare,* 2004, 9th edition, p. 736.
- Vasghese Jaiman and Hajira Kumar, *Women's Empowerment, Issue, Challenges and Strategies,* 2005, p. 282.
- www.socialjustice.nic.in visited on 15th November, 2013.
- Ministry of rural development, Govt. of India, Chapter VII- Rural Development, pp. 88-99.

- http://www.nistads.res.in/indiasnt2008/t6rural/t6rur3.htm visited on 16th March, 2017.
- http://yojana.gov.in/Recent_archive_english/February-14.pdf visited on 17th March, 2017.

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Full Length Research

Selected Models To Analyse The Demographic And Management Factors As Correlates Of Occupational Hazards Among Health Workers In Specialist Hospitals, Port Harcourt, Rivers State.

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Accepted 24 March 2017

This study analyzed some selected models in the demographic and management factors as correlates of occupational hazards among health workers in specialist hospitals, Port Harcourt in Rivers state. Nigeria. A descriptive survey research design was used. The selected model used in the analysis was Health Belief Mode, Cultural Theory and Risk, Trans theoretical Model of Behavior Change. A validated 45-item instrument titled Correlates of Occupational Hazards among Health Workers in Specialist Hospitals (COHHWSH) was used for data collection focusing on Perceived severity of health model, Perceived Susceptibility of Health Belief Model, Perceived Benefits of Health Model, Perceived barriers of Health Belief Model, Modifying Variables of Health Belief Model Cues to Action of Health Belief Model, and also covered are the Stages of behavior Change. Findings established that infrastructure and staff attitude are positive significant predictors of occupational hazards, remuneration, personnel, working environment and management style were not significant predictors of occupational hazards among health workers; Age and working experience do not significantly influence occupational hazards among staff. It was therefore recommended that level of infrastructure in hospitals should be improved for the efficient delivery of duties of health workers and health workers should try to develop positive attitude towards duties because a positive attitude to work is likely to lead to reduced occupational hazard among others.

Key Words: Demographic, Management, Correlates, Occupational Hazards, Health Workers, Specialist Hospitals, Wellbeing, Therapeutic, Typology

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INTRODUCTION

Worldwide, the healthcare personnel represent large working populations. Healthcare personnel work in a domain that is thought to be a standout amongst the most dangerous work-related settings (Manyele, Ngonyani, & Eliakimu, 2008). Notwithstanding the typical work environment related exposures, healthcare personnel experience different risks because of their occupational work related activities (Goniewicz, Włoszczak-Szubzda, Niemcewicz, Witt, Marciniak-Niemcewicz & Jarosz, 2012).

Customarily, safety measures are set of measures detailed to anticipate transmission of blood borne pathogens while giving medicinal services. Since distinguishing proof of patients tainted with these pathogens cannot be dependably made by restorative history and physical examination, (CDC)has suggested that standard wellbeing measure are utilized on all patients, paying little respect to information about their disease status. “Health care workers” (HCWs) are at danger of different word related perils in the doctor's facility, including presentation to blood borne contaminations, for example, HIV and hepatitis B and C infection from sharps wounds and contact with body liquids (Maji, 2006).

World Health Organization, (2006) defined health personnel as a medical expert or medical supplier, is a person who gives preventive, therapeutic, constrained time or rehabilitative organizations deliberately to people, families or gatherings. A therapeutic expert might work inside of all branches of restorative consideration, including specialists, dental practitioners, medical caretakers, drug specialists, psychologists or allied health professions. A therapeutic expert might likewise be an open/group health capability working for the benefit of the general public. Medical care experts incorporate doctors, dental specialists, drug specialists, doctor collaborators, attendants, propelled rehearse enlisted attendants, specialists, specialist's right hand, athletic mentors, surgical technologist, maternity specialists, dietitians, advisors, analysts, chiropractors, clinical officers, social authorities, phlebotomists, word related consultant, physical counselors, radiographer, respiratory guides, audiologists, talk pathologists, optometrists, emergency remedial specialists, paramedics, helpful exploration focus analysts, restorative prosthetic specialists and a wide arrangement of other HR arranged to give some kind of human administrations organization (WHO, 2010). They as often as possible work in centers, human administrations centers, and other organization movement concentrates, moreover in academic get ready, investigation, and association. Some give thought and treatment organizations to patients in reserved households. Several nations have a considerable amount for gathering wellbeing authorities whom labor out-side official human administrations establishments. Head of social protection organizations, wellbeing information experts, and other assistive staff and support workers are in like manner saw as a fundamental bit of human administrations gatherings'

Despite the information, the medicinal services workplace keeps on being disregarded by governments and associations (Manyele, Ngonyani, & Eliakimu,2008) A higher yearly pervasiveness of back agony (77%) among human services laborers contrasted with other word related gatherings has been accounted for (Lipscomb and Rosen stock, 1997, Andersen, Clausen, Mortensen, Burr, & Holtermann 2012). Ergonomic related wounds represent a critical wellbeing danger to specialists but it is the most pervasive word related damage in medicinal services industry (Ijzelenberg, & Burdorf 2005). Human services laborers are presented to blood-borne contaminations which for the most part open them to sicknesses, similar to TB, (Gupta, (2011). Generous horribleness and mortality among these laborers definitely prompt loss of talented staff and unfavorably affect social insurance administrations which are as of now stressed in numerous little and focus wage nations.

In Africa, the lack of human asset for wellbeing is portrayed as a philanthropic asset emergency because of huge migration of prepared experts, troublesome working conditions, poor pay rates, low inspiration, and high weight of irresistible infections, especially HIV/AIDS (Wilburn & Eijkemans, 2004). Proof demonstrate that social insurance staff remain frequently unprotected to substance, hereditary, physical, ergonomic/psychosocial word related threats. They are consistently in contact with patients that open them to defilements and consequently require fitting guarded measures to lessen their threat of acquiring of sickness or mischief. Information on work related perils among restorative administrations pros and their easing procedures stay uncommon in Nigeria and particularly Rivers state. Respecting the partner of work related danger among restorative administrations experts is relied upon to teach work related wellbeing and security procedure and undertakings for social protection workers. This study reviewed the partner of work related perils among human administrations workers to teach work related wellbeing and security system undertakings for social protection experts in Port Harcourt, Rivers State.

THE PROBLEM, AIM AND THE OBJECTIVES OF THE RESEARCH

Health workers in specialist hospitals, Rivers State are faced with occupational hazards, like stress, needle sticks, and exposure to body fluids, falls, cuts, violence and assaults which was observed by the researcher. The issue of violence against the health sector in humanitarian emergencies has grown such that it was specifically addressed as the 65th world Health Assembly (WHO, 2012). Most often health workers are exposed to psychological hazards like stress, fear caused by verbal abuse, work related drug or alcohol consumption, depression and intimidation in the workplace. These psychosocial hazards can have a variety of different impacts.

Based on this, the researcher decided to find out the correlates of occupational hazards among health workers in specialist Hospitals, Port Harcourt, Rivers State.

The aim of the study therefore, was to find out correlates of occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State., with specific objectives to:

1. Determine relationship between infrastructure and occupational hazard (physical, psychosocial, biological, chemical, ergonomic) among health workers in specialist hospitals, Port Harcourt, Rivers State.
2. Ascertain the relationship between remuneration and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State.
3. Determine the relationship between personnel and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State.
4. Uncover the relationship between working environment and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State.
5. Reveal the relationship between attitude to work and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State.
6. Ascertain the relationship between management style and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State
7. Ascertain the relationship between working experience and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State
8. Determine the relationship between age and occupational hazard among health workers in specialist hospitals, Port Harcourt, Rivers State

Theoretically, several models where considered in the analysis - Health Belief Model, Trans-theoretical Model, Cultural theory and risk. The Conceptual framework of the **c**oncept of occupational hazards among health workers - Classification of hazard among health workers and Causes of hazard among health workers.

Health Belief Model

One of the essential theories of wellbeing direct, the wellbeing conviction model was made in the 1950s by social specialists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal at the U.S. General Health Service to better grasp the expansive dissatisfaction of screening ventures for tuberculosis. (Rosenstock, Irwin 1974, Carpenter and Christopher, 2010). The health belief Model has been associated with predict a wide variety of wellbeing related practices, for instance, being screened for the early recognizable proof of asymptomatic diseases and getting immunizations. All the more as of late, the model has been connected to comprehend patients' reactions to side effects of sickness, consistence with therapeutic regimens, way of life practices (e.g., sexual danger practices), (Carpenter and Christopher 2010) and practices identified with unending ailments, which might require long haul conduct support notwithstanding beginning conduct change.

Theoretical constructs of health belief model

The accompanying develops of the health belief health are proposed to differ in the middle of people and foresee commitment in wellbeing associated practices (e.g., receiving inoculated, reception for asymptomatic sicknesses, working out) (Glanz, et al, 2008) (Figure 1)

Perceived severity of health model

Carpenter and Christopher (2010) “Perceived severity refersto subjective examination of the seriousness of a health issue and its potential results, the health belief model prescribes that individuals who see a given health issue as certifiable will likely partake in practices to keep the health issue from happening (or decrease its reality),Seen sincerity conceals feelings about the disease itself (e.g., whether it is life-incapacitating or may achieve failure or torment) and also more broad impacts of the disorder on working in work and social parts” Glanz, et al, (2008). For example, an individual might see that flu is not therapeutically true blue, but rather on the off chance that he or she sees that there would be dead genuine cash related results as a possible result of being truant from work for several days, then he or she might see flu to be an especially true blue condition.

Perceived Susceptibility of Health Belief Model

Perceived susceptibility refers to subjective evaluation of risk of adding to a wellbeing issue. The wellbeing conviction model predicts that people who see that they are helpless to a specific wellbeing issue will take an enthusiasm for practices to reduce their danger of working up the wellbeing issue. People with low saw weakness might deny that they are at danger for getting a specific ailment. Others might see the likelihood that they could add to the contamination, yet trust it is doubtful. People who trust they are at okay of adding to a disorder will probably share in unpleasant, or unsafe, sharpens. People who see a high risk that they will be in the long

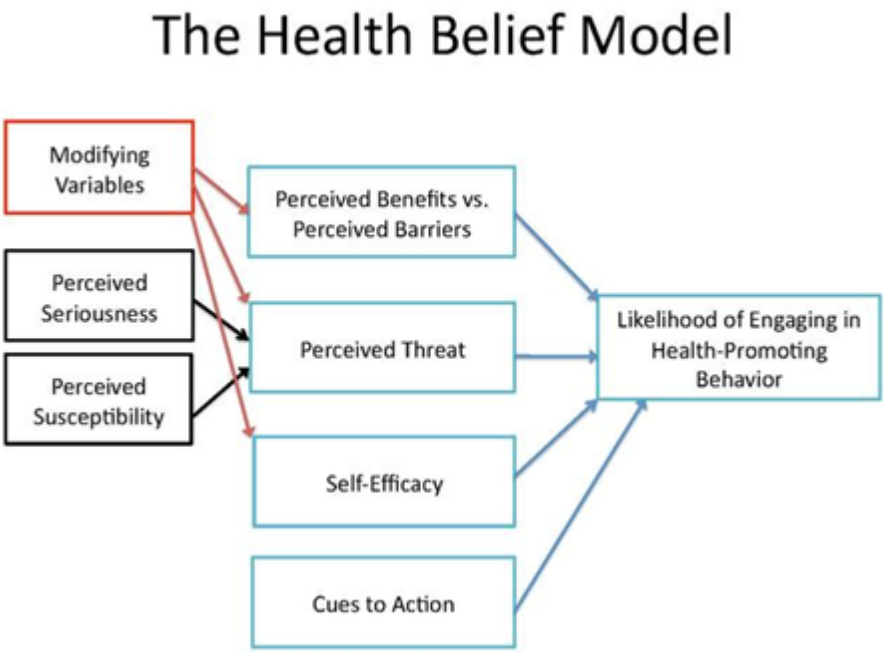

Figure 1. The Health Belief Model

run influenced by a specific wellbeing issue will apparently take an enthusiasm for practices to diminish their danger of working up the condition.

Perceived Benefits of Health Model

Perceived Benefits of Health Model are besides influenced by the obvious purposes of enthusiasm of making a move. Seen purposes of interest suggest an individual's appraisal of the quality or adequacy of joining in a wellbeing raising conduct to diminishing risk of infection. On the off chance that an individual trusts that a specific development will decrease weakness to a wellbeing issue or diminishment its validity, then he or she is committed to join in that direct paying little respect to target certainties concerning the sufficiency of the movement. For instance, people who accept that wearing sunscreen evades skin tumor will probably wear sunscreen than people who expect that wearing sunscreen won't keep the event of skin threat.

Perceived barriers of Health Belief Model

Health related practices likewise an element of saw obstructions to making a move. Seen boundaries allude to an individual's appraisal of the deterrents to conduct change. Regardless of the fact that an individual sees a health condition as undermining and trusts that a specific activity will viably diminish the risk, hindrances might counteract engagement in the health advancing conduct. As it were, the apparent advantages must exceed the apparent obstructions all together for conduct change to happen. Seen hindrances to making a move incorporate the apparent disadvantage, cost, threat (e.g., symptoms of a therapeutic system) and uneasiness (e.g., torment, enthusiastic miracle) included in taking part in the conduct. Case in point, absence of access to reasonable medicinal services and the observation that an influenza immunization shot will bring about critical agony might go about as boundaries to accepting this season's flu virus antibody.

Modifying Variables of Health Belief Model

Specific qualities, including demographic, psychosocial, and fundamental variables, can affect affirmations (i.e., saw reality, vulnerability, purposes of hobby, and cutoff points) of wellbeing related practices. Demographic variables join age, sex, race, ethnicity, and get ready, among others. Psychosocial variables join identity, social class, and amigo and reference pack weight, among others. Vital variables solidify learning around a given tribulation and before contact with the sickness, among

different segments. The wellbeing conviction model recommends that modifying variables sway affecting with a specific end goal to wellbeing related practices by proposal saw truthfulness, powerlessness, great circumstances, and obstructions.

Cues to Action of Health Belief Model

The “health belief model” places a sign, is important for provoking appointment in wellbeing advancing practices. Signs to activity can be inner or outer. Physiological prompts (e.g., torment, side effects) are a sample of inner signals to activity. Outer signals incorporate occasions or data from close others, the media, or human services suppliers advancing engagement in health related practices. Illustrations of signs to activity incorporate an update postcard from a dental practitioner, the disease of a companion or relative, and item health cautioning names. The force of signs expected to incite activity changes between people by saw weakness, reality, advantages, and hindrances. For instance, people who trust they are at high hazard for a genuine sickness and who have a set up association with an essential consideration specialist might be effectively induced to get screened for the ailment subsequent to seeing an open administration declaration, while people who trust they are at generally safe for the same disease furthermore don't have solid access to medicinal services might require more extraordinary outer signals keeping in mind the end goal to get screened.

Self-Efficacy of Health Belief Model

Self-efficacy was added to the four sections of the “health belief model” (i.e., saw powerlessness, reality, advantages, and obstructions) in 1988. Self-efficacy proposes an individual's impression of his or her wellbeing to enough perform a conduct. Self-efficacy was added to the wellbeing conviction model attempting to better elucidate solitary differences in wellbeing rehearses. The model was at first made in order to elucidate engagement in one-time wellbeing related practices, for instance, being screened for malady or tolerating an immunization. At last, the wellbeing conviction model was associated with more liberal, whole deal conduct change, for instance, diet alteration, work out, and smoking.

Applications **for Health Belief Model**

The health belief model has been utilized to create viable intercessions to change targeting so as health related practices different parts of the model's key builds.

Intercessions in view of the health belief model might expect to increment saw weakness to and saw earnestness of a providing so as to health condition training about pervasiveness and rate of sickness, individualized appraisals of danger, and data about the outcomes of illness (e.g., medicinal, money related, and social results). Intercessions might likewise expect to adjust the money saving advantage investigation of participating in a health advancing conduct (i.e., expanding saw advantages and diminishing saw boundaries) by giving data about the adequacy of different practices to lessen danger of illness, distinguishing basic saw obstructions, giving impetuses to take part in health advancing practices, and connecting with social backing or different assets to energize health advancing practices. Moreover, mediations in view of the health belief model might give signs to activity to remind and urge people to take part in health advancing practices. Intercessions might likewise intend to help self-viability by giving preparing in particular health advancing practices, particularly for complex lifestyle changes (e.g., changing eating normal or physical activity, holding quick to a convoluted solution regimen). Interventions can be away for the individual level (i.e., working one-on-one with individuals to grow engagement in wellbeing related practices) or the societal level (e.g., through sanctioning, changes to the physical environment)

Trans theoretical Model of Behavior Change

The trans theoretical model of behavior change evaluates a person's availability toward follow up off another more beneficial conduct, and gives systems, or procedures of progress to manage the person concluded they phases for progress to Accomplishment and Conservation. The trans-theoretical model is also known by the truncation "TTM" and by the expression "periods of advancement. James O. Prochaska of the University of Rhode Island and accomplices added to the trans theoretical model beginning in 1977). "It relies on upon examination and usage of different theories of psychotherapy, in this way the name "trans theoretical." Prochaska and associates refined the model on the premise of exploration that they distributed in companion investigated diaries and books" (Prochaska, &Norcross, 2010).

Stages of behavior Change

Trans-theoretical model, “change is a process involving progress through a series of stages:"

Pre-contemplation (Not Ready)-"People are not intending to take action in the foreseeable future, and can be unaware that their behaviour is problematic"

Contemplation (Getting Ready)-"People are beginning to recognize that their behaviour is problematic, and start to look at the pros and cons of their continued actions"

Preparation (Ready)-"People are intending to take action in the immediate future, and may begin taking small steps toward behaviour change"

Action – "People have made specific overt modifications in modifying their problem behaviour or in acquiring new healthy behaviours"

Maintenance – "People have been able to sustain action for at least six months and are working to prevent relapse"

Termination – "Individuals have zero temptation and they are sure they will not return to their old unhealthy habit as a way of coping"

Relapse/Recycling: In addition, the researchers conceptualized "relapse" (recycling) which is not a stage in itself but rather the "return from Action or Maintenance to an earlier stage."

Each Stage details

Stages of Change
Stage 1: Pre-contemplation (Sub consciousness)

The theory consists of four "core constructs": "stages of change," "processes of change," "decisional balance," and "self-efficacy." People at this stage don't hope to start the strong direct within the near future (within 6 months), and may be oblivious of the need to change. People here take in additional about strong behavior: they are asked to consider the stars of changing their behavior and to feel emotions about the effects of their contrary behavior on others. Pre-contemplators normally think minimal about the masters of changing, overestimate the cons, and as often as possible don't think about submitting such blunders. A champion amongst the best steps that others can help with at this stage is to urge them to end up more aware of their choice making and more aware of the distinctive positive circumstances of changing an undesirable conduct. Figure 2

Stage 2: Contemplation (consciousness)

At this stage, individuals are hoping to start the sound behavior within the accompanying 6 months. While they are regularly now more aware of the masters of changing, their cons are about identical to their Pros. This hesitance about changing can make them keep putting off making a move. People here get some answers concerning the kind of individual they could be if they changed their behavior and acquire from people who carry on in strong ways. Others can effect and help enough at this stage by encouraging them to work at lessening the cons of changing their behavior.

Stage 3: Preparation (pre-action)

Individuals on is phase are prepared towards begin making a move inside of the following 30 days. They make little strides that they accept can offer them some assistance with making the solid conduct a piece of them be alive. For example, the expression that loved ones who need to adjust their conduct. Individuals in this phase ought to remain urged towards appearance for backing from companions the belief, inform individuals concerning their arrangement towards modification of the way they performed, and consider in what way they will sense on the off chance that they carried on healthier. Their number one concern is: the point at which they perform.

Stage 4: Action (**current action)**

Individuals at this stage have changed their conduct inside of the most recent 6 months and need to attempt to continue pushing forward. These people need to understand how to stimulate their commitments to change and to battle longings to slip back. Individuals in this stage progress by being taught systems for keeping up their commitments, for case, substituting rehearses identified with the grievous conduct with important ones, remunerating themselves for wandering toward changing, and dodging individuals and circumstances that bait them to act in repulsive ways.

Stage 5: Maintenance (monitoring)

Individuals at this stage changed their conduct over 6 months back. It is key for individuals in this stage to consider circumstances that might entice them to slip by the day's end into doing the appalling lead especially unpleasant circumstances. It is suggested that individuals in this stage scan for backing from and visit with individuals whom they trust, put imperativeness with individuals who act in solid ways, and survey to join in sound exercises to change in accordance with push as opposed to depending upon undesirable conduct.

Stage 6: Relapse (resuming)

The fall far from the confidence stage in the TTM indicate particularly applies to people who effectively quit smoking or utilizing meds or liquor, just to continue with these shocking practices in the Maintenance stage. People who endeavor to stop exceedingly addictive practices, for

Figure 2

occurrence, arrangement, liquor, and tobacco use are at especially high danger of a lose the confidence. Accomplishing an entire arrangement conduct change oftentimes requires propelling support from relatives, a wellbeing guide, an expert, or another motivational source. Strong composed work and particular assets can likewise be important to keep up a key division from a slip into sin from happening.

Processes of change

The 10 techniques of advancement are "covert and clear exercises that individuals use to advance through the stages."To progress through the early stages, individuals apply insightful, overflowing with feeling, and evaluative system. As individuals move toward Action and Maintenance, they depend more on commitments, framing, possible results, organic controls, and sponsorship. Prochaska and relates express that their examination related to the transtheoretical model shows that interventions to change behavior are all the more convincing if they are "stage-composed," that is, "facilitated to each individual's period of advancement."(Prochaska and Velicer, 2009. See Figure 3

In general, for individuals to advance they require:

1. A creating care that the purposes of hobby (the "specialists") of changing surpass the weights (the "cons") the TTM calls this decisional equality.
2. Confidence that they can take off and keep up upgrades in circumstances that allure them to return to their old, terrible behavior the TTM calls this self-practicality.
3. Strategies that can offer them some help with rolling out and keep up improvement the TTM calls these techniques of advancement. The ten systems include:

i. Consciousness-Raising extending care by method for information, preparing, and singular feedback about the strong behavior.
ii. Dramatic Relief feeling fear, anxiety, or weight by virtue of the undesirable direct, or feeling inspiration and trust when they get some answers concerning how people can change to strong practices
iii. Self-Reevaluation understanding that the strong behavior is a basic bit of who they are and should be
iv. Environmental Reevaluation recognizing how their appalling behavior impacts others and how they could have more useful results by advancing
v. Social Liberation understanding that society is more solid of the sound behavior
vi. Self-Liberation confiding in one's ability to change and making obligations and recommitments to catch up on that conviction
vii. Helping Relationships finding people who are solid of their change
viii. Counter-Conditioning substituting undesirable strategies for acting and thinking for strong ways
ix. Reinforcement Management—extending the prizes that start from positive lead and decreasing those that begin from negative behavior
x. Stimulus Control—using upgrades and signs that bolster strong behavior as substitutes for those that stimulate the shocking behavior.

Decisional balance

This center build "mirrors the individual's relative weighing of the upsides and downsides of evolving." (Prochaska and Velicer, 2009) Decision making was conceptualized by Janis and Mann as a "decisional asset report" of similar potential increases and misfortunes (Hall and Rossi 2008) Decisional parity measures, the experts and the cons, have gotten to be basic develops in the trans-hypothetical model. The upsides and downsides join to frame a decisional "monetary record" of relative potential additions and misfortunes. The harmony

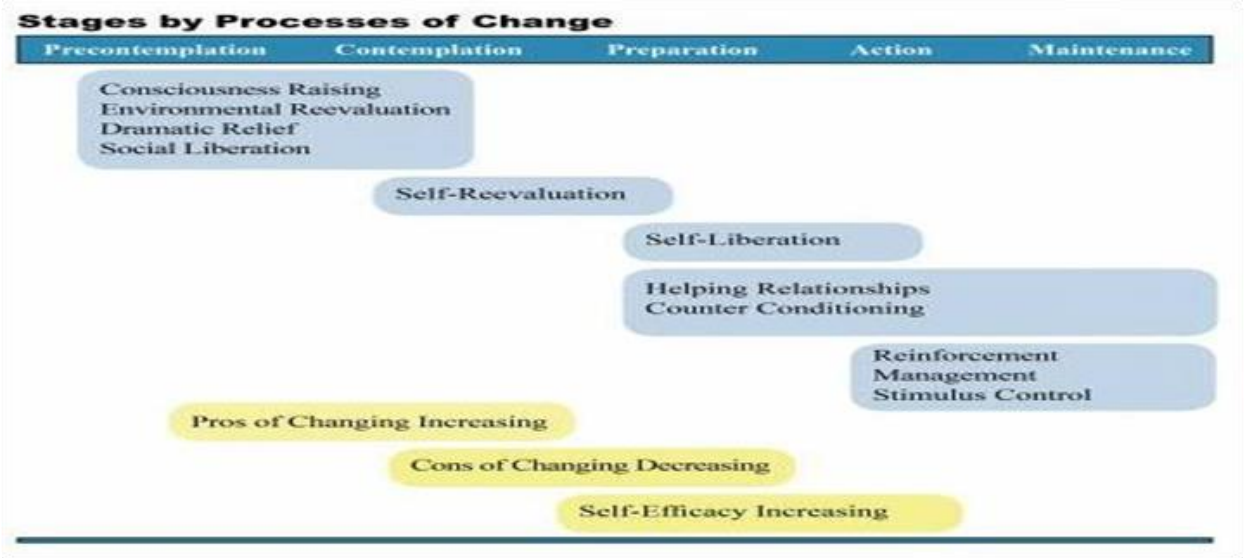

Figure 3

between the advantages and disadvantages shifts relying upon which phase of progress the individual is in.

Cultural Theory and Risk

Mary Douglas is credited with being the originator of the cultural theory of risk. With a background in anthropology, her interest in risk in industrial societies evolved from her work in the 1960s on pollution and dangers in tribal societies. In Purity and Danger (Douglas, 1966) she takes on the task of "vindicating the so-called primitives from the charge of having a different logic or method of thinking" (Douglas, 1992). Douglas argues that the 'danger' taboos linked to acts of pollution by primitive groups play an intelligible role in maintaining particular forms of social order. There is always some explanation for the misfortunes that befall individuals' within any social group, but Douglas claims that social groups hold consistent forms of explanation for misfortune.

A similar example is where it is believed that a wife's adultery may cause her husband to receive a fatal arrow wound. The function of the linkage between danger and blame is to uphold judgments of appropriateness and hence to reproduce a particular social order. Using a similar link between the appearance of a danger and the blaming process we can identify some more familiar examples. It is known that in fourteenth century Europe, poor water quality was a persistent danger, but the issue only became politicized when persecution of the Jews began and as part of that process, they were blamed for poisoning well-water (Douglas & Wildavsky, 1983) This link between events and the varying processes by which blame is attached is called the forensic model of danger. The allocation of responsibility for hazard events is a "normal strategy for protecting a particular set of values belonging to a particular way of life shared confidence and shared fears, are part of the dialogue on how best to organize social relations" (Douglas & Wildavsky, 1983). According to the forensic model, the selection of dangers (risks) is unavoidably political in all simpler societies and, by implication, in all industrial societies. If these examples seem to be the products of 'primitive' mysticism, consider the modern example of HIV (Douglas, 1992). As awareness of HIV increased in the 1980s, the linkage of the condition to the perceived immorality of homosexuality and promiscuity was common, to the extent that one would have to assume that the virus was capable of making a moral judgment. Douglas (1992) acknowledges that she failed to apply this forensic model to what industrial society calls 'risk' for too long. It was argued that dangers had been disengaged from politics and ideology to be dealt with objectively by science. Technology supposedly allows industrial societies to identify the objective causes of dangers, and so their forensic quality is lost. The 1970s brought a surplus of examples as fissures appeared in the foundations of scientific endeavour. Technology became a source of danger in itself and scientific knowledge was found to be lacking in critical areas. This is the basic argument of Beck's Risk Society. The private sphere of commercialization and consumption was imposing a particular class of risk, driven by technology and promoted by science that led to a feeling amongst certain groups that risk was indentured in the very nature of

emerging society. It was the combination of iniquitousness, powerlessness and dependency on the very science and technology that created the risk in the first place that gave Beck his publicity. The forensic links between dangers and blame were re-established in attacks on government for its failure to restrain industry and in the defiance of the 'naturalness' of natural resources. The first explicit link between the emerging risk crises and Douglas' work was made by Thompson (1988). He adopted a typology introduced below to explore West German risk perceptions regarding nuclear energy and views on uncertainty held among Himalayan Sherpa Buddhists. He argued that the forensic uses of risk are as pervasive as in the tribal societies Douglas described in Purity and Danger. There is now a system that is "almost ready to treat every death as chargeable to someone's account, every accident as caused by someone's criminal negligence, every sickness a threatened prosecution. (Douglas, 1992). Central to cultural theory is the assertion that the differences between the taboos of 'primitives' and risk in modern society is a difference of degree. Douglas suggests that the terms risk and taboo could be subsumed under the more encompassing term 'dangers'. The claims for the universality of the forensic uses of danger implies that: The modern concept of risk, parsed now as danger, is invoked to protect individuals against the encroachment of others. It is part of the system of thought that upholds the type of individualist culture, which sustains an expanding industrial system. The dialogue about risk plays the role equivalent to taboo or sin, but the slope is tilted in the reverse direction, away from protecting the community and in favour of protecting the individual (Douglas, 1992).

Re-uniting primitives and modems

Douglas was approached by a political scientist, Aaron Wildavsky, to apply the forensic model to the United States. The result of this challenge was the development of a single forensic theory of danger that applied equally to 'modems' and 'primitives' (Douglas & Wildavsky, 1982). The resulting book, Risk and Culture, is nowadays regarded as a key text for understanding the origins of cultural theory. The world appears to be a less hazardous place than it was even 50 years ago, simply because most people in developed countries live longer. Douglas & Wildavsky explain why it is that in countries such as the United States, where hazards have systematically been decreased, people feel more at risk. Specifically, these authors seek to explain the rise of environmentalism in the US in the late 1960s and 1970s and the appearance of 'troubled nature'. Given that the prevalence of lethal hazards has diminished, the thesis is that the feeling of being more 'at risk' must be social in origin. Douglas & Wildavsky argue that there has been a constant tension between the 'Center' and the 'Border' in US politics. The Center incorporates two enduring categories in western political thought: the market and the hierarchy. The market represented innovation, individualism and progressivism, while the hierarchy protected the general social order against the excesses of market opportunism.

The one needed the other for its positioning and influence. Douglas (1985), Ostrander (1982) and Thompson et al. (1997) explore the persistence of these forms of organization in the twentieth century and suggest that most attempts to expand beyond three or four forms of social order invariably collapse back into these two. The central argument in Risk and Culture is that neither category is adequate for describing the form of organization and activity that became prevalent in the US in the 1960s and 1970s. This they call the 'Border'. This axis of tension between the 'Center' and the 'Border' is embodied in the US constitution and protects citizens from the worst ravages of 'big government'. On a shorter timescale they show that there was a concentration of power in the 'Center' as a result of the depression of the 1930s, the Second World War and the rise of international communism. By the 1960s and 1970s the validity of this concentration of power was being questioned. Furthermore, two events were identified as weakening faith in the 'Center'. The first was the Vietnam War, which challenged the legitimacy of foreign intervention and conscription. The second was the discrediting of President Nixon in the Watergate affair. Watergate revealed such widespread and organized political corruptions that trust in the institutions of government was substantially degraded. These historical events combined with demographic and economic shifts leading to a more mature and affluent US society. The 'Border' became a critical vocal group whose ideological positions increasingly differed from those of the 'Center'. Douglas & Wildavsky argue tliat one consequence of the weakening of the 'Center' was a rise in a type of organization known as the 'sect'. The term is usually applied to religious groups like the Amish, but Douglas & Wildavsky argued that they share many structural similarities with environmental groups. Sects have always been present at the 'Border' of US society but have been ignored due to their tendency to isolate themselves. The key similarity between the emergent sects and their religious analogues lay in their commitment to shared equality amongst the members of the group, as embodied in the concept of egalitarianism. Newly emergent environmental groups took on egalitarian principles, not so much as an active choice, but because of the absence of an alternative.

The grid-group typology

The formalization of Douglas' ideas on pollution and

danger in her earlier work (Douglas, 1966, 1970) came with the development of a formal typology based on two axes: grid and group (Douglas, 1978). This typology has become the best known element of the cultural theory of risk. Indeed, the typology is often confused with the theory within which it is embedded (Boholm, 1996). This is why we have sought to explore the theoretical antecedents to cultural theory, before discussing the grid-group typology.

Grid/group dimensions and solidarities

In Essays in the Sociology of Perception (1982), Mary Douglas sets out the basic assumptions behind two axes of the typology. Firstly, she considers the minimum forms of commitment to life in a society postulated by political theory. These are represented in terms of the strength of allegiance to a group. Secondly, she considers the extent of regulation within or without the group; this is the grid axis. For instance, a military regiment with its prescriptions for behaviour and rigid timetabling represents a high grid social environment. Ostrander defines the two axes succinctly by arguing that social order limits the freedom of individuals in two spheres: whom one interacts with (group), and how one interacts with them (grid). Another succinct definition considers the dimensions in terms of two questions related to identity, to which social institutions provide answers: who am I and what can I do? (Hoppe & Peterse, 1994).

Group refers to the extent to which an individual is incorporated into bounded units. The greater the incorporation, the more individual choice is subject to group determination. Grid denotes the degree to which an individual's life is circumscribed by externally imposed prescriptions (Thompson et al, 1990).

Thompson (1997) describes the four social contexts as solidarities. This is helpful because it emphasises the way in which institutional forms bind individuals by defining accepted forms of behaviour. Hierarchies and sects have strong group dimensions. For instance, hierarchies clearly differentiate an individual's role relative to the roles of other members of the group. This form is typical of bureaucracies and emphasizes rules and order. Sectarian forms emphasize equality, and solidarity is often reinforced through the identification of external dangers. Markets and isolates are characterized by a weak group dimension to their social solidarity. This does not imply an absence of society or sociality. The conventional example of an individualist institution is the market, where individuals are unconstrained by the rules of a hierarchical institution or the strong demands of a group. Markets involve the formation of networks that are fluid, opportunistic and non-constraining. Isolates are constrained by a high grid dimension, but also have no incentive to form groups. As a form of solidarity, it is the most difficult to understand because the weak grid dimension implies an absence of power. These institutions are sometimes left out of the typology because they are politically bereft (Coyle, 1994). Perhaps they are best understood if one acknowledges that some form of solidarity is better than none.

The essence of culture is the need to impose some form of order on the life world, even if this is a common sense of resignation. The grid dimension monitors behaviour in general, but also applies to symbolic action. In high grid situations, symbolic action will be routinised, whilst in low grid contexts it will be personalized. Ostrander (1982) also focuses on the interactional level. He identifies a 'stable diagonal' between hierarchies and markets that suggests they can form enduring social structures. The opposite diagonal between isolates and sects is unstable, so enduring social structures are less likely. There are two implications of these tendencies towards stability and instability. Firstly, across the stable diagonal there will be a tendency to see the cosmological order as having positive value. Secondly, across the stable diagonal we may begin to see an elaboration in the symbolic system as a consequence of long traditions of doctrine and interpretation. Ostrander suggests that with time, the elaboration will tend to be greater than any individual can master. This helps to reinforce the differentials inherent to a hierarchy. Increasing specialization satisfies the goals of those active in a particular culture.

SUMMARY

In analyzing the demographic and management factors as correlates of occupational hazards among health workers in specialist hospitals, Port Harcourt, Rivers State revealed that the selected models including the Health Belief Model which is associated with predicting a wide variety of wellbeing related practices, especially, recognizable proof of asymptomatic diseases and getting immunizations. It is further used to establish viable intercessions to change targets in health related practices.

Relatively, the Trans Theoretical Model of behavior change instead evaluates a person's availability toward follow up of another more beneficial conduct, and gives systems to managing the person’s phases for progress to accomplishment and conservation, regardless of their postulations and expertise of the healthcare personnel – medical care, therapeutic administration - the typical work environment related exposures - infrastructure and staff attitude are positive significant predictors of occupational hazards, while remuneration, personnel, working environment and management style were not significant predictors of occupational hazards among health workers.

REFERENCES

Adeniyi, J.A (2002).Occupational health and safety: concepts, objectives and relevance. Nigerian School Health Journal, 14 (1&2), 192-199

Carpenter, Christopher J. (2010). "The role of behavioral science theory in development and implementation of public health interventions". Annual review of public health **31**: 399–418.

Coyle, D.J. (1994) The theory that would be king in: D.J. COYLB, & R. ELLIS (Eds) Politics Policy and Culture, pp. 219-239

Doulas, M. (1997) Thedepoliticisation of risk in: R.J. ELLIS & M. THOMPSON (Eds) Culture Matters: Essays in Honor of Aaron Wildavsky, pp. 121-132 (Boulder, Westview).

Douglas, M. (1982) Essays in the Sociology of Perception, p. 340 (London, Routledge and Kegan Paul). DOUGLAS, M. (1985) Risk Acceptability According to the Social Sciences, p. 115 (New York, Russel Sage Foundation).

Glanz, Karen; Barbara K. Rimer; K. Viswanath (2008). Health behavior and health education: theory, research, and practice. (4th ed.). San Francisco, CA: Jossey-Bass. pp. 45–51.

Goniewicz, M. A. Włoszczak-Szubzda, M. Niemcewicz, M. Witt, A. Marciniak-Niemcewicz,& M. J. Jarosz, (2012) Injuries caused by sharp instruments among healthcare workers— international and Polish perspectives. *Annals of Agricultural and Environmental Medicine*, vol. 19, no. 3, pp. 523–527

Ijzelenberg W. and A. Burdorf, (2005) “Risk factors for musculoskeletal symptoms and ensuing health care use and sick leave,” Spine, vol. 30, no. 13, pp. 1550–1556,.

Maji Tijani J. ,(2006). occupational health hazards among workers of seven-up bottling company plc, kaduna plant. Dept. Of Community Medicine Faculty of Medicine

Manyele, H. A. Ngonyani, and E. Eliakimu, (2008) “The status of occupational safety among health service providers in hospitals in *Tanzania,” Tanzania Journal of Health Research*, vol. 10, no. 3, pp. 159–165.

Ostrander, D. (1982) One- and two-dimensional models of the distribution of beliefs in: M. Douglas (Ed.) Essays in the Sociology of Perception, pp. 14-30

Rosenstock, Irwin (1974).*"Historical Origins of the Health Belief Model"*. Health Education Behavior **2** (4): 328–335.)

Thompson, M. (1997). Security and Solidarity: An anti-reductionist framework for thinking about the relationship between us and the rest of nature (Bergen, LOS-senteret).

WHO/ICN (2006). Evaluation studies on health care workers, Geneva, WHO. Vol 2, series 1.

WHO.World Health Organization, (2010). Classifying health workers. Geneva

Wilburn and G. Eijkemans, (2004), “Preventing needle stick injuries among healthcare workers: a WHO-ICN collaboration,” International Journal of Occupational and Environmental Health, vol. 10, no. 4, pp. 451–456

World Health Organization (WHO). 2012. WHO’s response, and role as the health cluster lead, in meeting the growing demands of health in humanitarian emergencies. Geneva, Switzerland: World Health Organization.

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Full Length Research

Effect of El Niño induced drought on students' academic performance: a case study in Borena woreda of South Wollo Zone, Ethiopia

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It is unequivocal that the climate of our planet is changing and the impacts are being felt in most parts of the world-particularly in developing countries where their economies are highly dependent on weather sensitive primary sectors and their adaptive capacity is very low, among others. Though studies have been conducted to investigate the impacts of such changes on livelihoods and ecosystems, its effect on students' academic performance has been little researched. This study was conducted to examine the impact of climate change induced shocks on students' academic performance. Ex-post facto research design has been employed to investigate the impacts of 2015/16 El Niño on academic performance of 1210 students selected from junior secondary schools using multistage sampling technique. Data has been analyzed using independent sample t-test, Chi-square test and linear regression. The t-test result revealed that students from El Niñoprone schools have scored statistically lower mean result as compared with their counterparts (t (1208) =2.98, p= <0.05, two-tailed). The Chi-square test result (χ^2 (1) = 35.78, p<0.01) also evidenced that the observed proportion of students from victimized schools in the top achieving groups was statistically less than expected. Likewise, linear regression analysis result confirmed that being in El Niño prone schools was among the factors which determine students' academic performance. Based on these findings, we recommend that concerned government and non-governmental organizations have to give due attention for schools in drought prone areas in providing supports and building their resilience.

Key words: Academic performance, climate change, El Niño, independent-samples t-test

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INTRODUCTION

Climate change is one of the major development challenges of the 21thC and children are particularly more vulnerable as they are psychologically and physiologically less able than adults in adapting climate-related exposure (Doherty and Clayton, 2011; Oselumese *et al*., 2016). In this regard, ISCA (2008) had highlighted that, with increasing number of disasters being linked to changing climatic conditions, and the escalating frequency of

droughts, floods, water scarcity, malaria and vector–borne diseases, children are likely to be adversely affected both as children and in their adult lives. The types of climate risks confronting school aged children are diverse: ranging from direct physical impacts (such as cyclones, storm surges, flooding and extreme temperatures) to impacts on their education, psychological stress and nutritional challenges (UNICEF, 2011a). As underlined by UNICEF (2011b), children are disproportionately vulnerable to the impacts of climate change but remain invisible in climate change adaptation discourse; and as a result, climate change policies and program do not yet adequately recognize children's vulnerabilities. The specific nature of their vulnerability is multidimensional, shaped largely by the physical, social and emotional changes that take place over the course of childhood. Children are also more likely than adults to be killed or injured during disasters; they are particularly susceptible to air and water quality, temperature, humidity and vector-borne infections due to their less-developed physiology and immune system.

Bartlett (2008) and Oselumese *et al*. (2016) argued that there are links between climate change and education (refer Figure 1) particularly during and immediately after extreme events or environmental and climate-related disasters. For instance, during extreme events, school infrastructure or roads and bridges to schools can be destroyed, limiting children's possibilities of attendance; children may be removed from school to support the household; the added burden of disease in areas suffering food and water insecurity can render children too weak to attend school. It can also reduce the time available for education when the household division of labour is restructured to cope with illness. In any case, ill or malnourished children lack the energy to be active learners. Climate change is likely to exacerbate the risk of dropout, mainly through its economic impacts on households and children (UNICEF, 2011b). Mbah (2014) and Nkeiruka (2014) also underlined that climate change-related problems adversely affect teaching and learning by causing lateness and absenteeism to school among teachers and students; destruction of school buildings and learning materials, unconducive learning environment, destruction of means of livelihood; incompletion of curriculum content, ineffective instructional supervision, and poor performance in examinations. El Niño might cause shortages of water and food, leading to malnutrition and famine which would have impacts on school attendance and result in poor performance in academic work (Nkeiruka, 2014). Climate change induced scarcity of water in Vietnam, for instance, forced girls to miss classes frequently (Walker, 2012). Schools might be occupied as shelters for people displaced by climate change impacts, eventually forcing school children out of schools. Getting these children back to school once they drop out can be a serious challenge (UNICEF, 2015).

Some of the leading killers of children worldwide are highly sensitive to climate change. Higher temperature has been linked to increased rate of malnutrition, cholera, diarrhea disease and vector-borne diseases like dengue and malaria (UNICEF, 2011a). Danysh *et al*. (2014) disclosed that children born during and after 1997/98 El Niño in Peruwere on average shorter and had less lean mass for their age than expected. Changes in temperature or precipitation can cause changes in the seasonality of some allergenic species, changes in the distribution of some disease vectors and changes in the seasonal distribution of malaria, dengue, tick-borne diseases, cholera and other diarrhea diseases which would affect children. Climate change may also impact school attendance and educational attainment through its effects on children's health and nutritional status (UNICEF, 2008). Extreme weather events and changes in maximum temperature (heat waves) can increase the incidence of mortality and morbidity (UNICEF, 2011a; Nkeiruka, 2014 and Oselumese *et al*., 2016). On the other hand, climate change might force governments to squeeze their budget on education in dealing with climate change impacts such as disasters or droughts which have undesirable impact on enrolment and quality of education (UNICEF, 2008).

Research indicates that vulnerable households can withdraw children from school as part of their coping strategy to deal with shocks to income. A drop in income of households due to climate change impacts is more likely to cause cuts in food expenditure, substituting less nutritious food or consuming less, with profoundly detrimental effects on child development. Similarly, adjustments in consumption could result in a reduction in spending on health care and school related costs. As a result, a shock to incomes often means lower school attendance, performance or even dropout. With that, some children, particularly the older ones, would take up paid work to help support the household. UNICEF (2008) stated that when income of the family is deteriorated due to climate change, children are forced to incorporate paid or unpaid work into their routine whilst still attending school which adversely obstructed their academic performance by taking away their time and energy from school and school-related tasks. What makes things worse is that, the rate of dropout is high for children from poor families. In this regard, a study by Tassew and Adiam (2015) in Ethiopia revealed a unit increase in the wealth index was found to increase the child's chances of completing primary school by 37.6 percent. Domestic duties may be redistributed to children, generally girls, who will then offer less time to school and leisure (UNICEF, 2008/2011b andBartlett, 2008). Tassew and Adiam (2015) revealed that there is high probability of dropping out from schools and forced children to take part in domestic activities, unpaid activities and paid

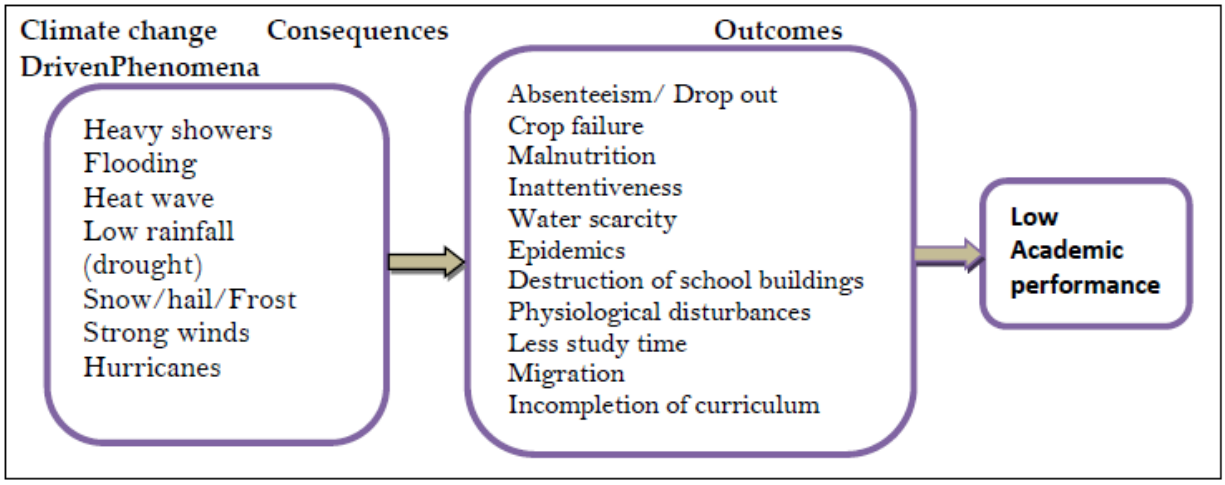

Figure 1: Conceptual framework- impacts of climate change on academic performance

labour due to shocks. As compared with boys, girls are often responsible for fetching the household supply of water and collecting firewood, and they are forced to travel greater distances as sources become scarcer. As a result, they have less time to spend on school-work and leisure, both of which are vital for children's social and intellectual development (Orazem and Gunnarsson, 2003; UNICEF, 2008/2011b; UNESCO, 2012; AKLDP, 2016).

Climate change induced disasters could also trigger displacement of people which has serious consequences for children. It fragments families and disrupt social networks; interrupts children's education and may result in leaving the school system altogether (UNICEF, 2008).Climate shocks affect human capital accumulation (among the key capitals which enable to improve resilience of people to climate shocks as well as priority development goals) and it will seriously fall as the risk of disaster increases. Muthaa *et al*. (2013) and UNCED (1992) underscored that education is critical for promoting sustainable development and improving the capacity of people to address environment and development issues. However, additional stress from global warming will make it more difficult to achieve existing development targets for education (UNCED, 1992; UNDP, 2007 and Crespo, 2009). A study by World Bank (2010), confirmed that a one standard deviation increase in the coefficient of variation of rainfall could reduce grade attainment by 0.2 grades. Similarly, Jensen (2000) found that enrolment rates declined by 20% in climate change exposed regions; and Alderman *et al*. (2006) reported that drought-affected households delayed starting school of children on average by 3.7 months. Tassew and Adiam (2015) in Ethiopia disclosed statistically significant effect of shocks on students' dropout rate in primary schools; a child from a household that had experienced shocks was found to be less likely to complete primary education by 32.2 per cent compared with a child whose household had not experienced any such shocks. A recent study by AKLDP (2016) in the aftermath of El Niño-driven drought in Gonder zone (Ethiopia) disclosed a steep surge in the drop-out rate of students to help their families in collecting water and firewood and to do other household and farming chores, or that their parents were not able to afford the cost of school logistics.Mbah (2014) revealed that flooding in Nigeria had caused the loss of homes of many people which led to mass movement of people which in turn adversely affected the education of many children. School buildings and learning materials were swept off thereby disrupting the education of the children. Walker (2012) on the other hand stressed that climate change would particularly affect the struggle to achieve access to education particularly in developing countries where their human capital accumulation is very low. As emphasized by World Bank (2010), children may be affected by school withdrawal in response to climatic shocks, with long-run and irreversible impacts on human capital and, subsequently, lifetime earnings. Higher levels of risk should result in a greater incentive to increase the number of hours worked by children and reduce investments in education. Such interruption and/or impediment to access of education have a detrimental impact on learning outcomes (UNDP, 2007).

STATEMENT OF THE PROBLEM

The 2015/2016 El Niño-driven weather condition caused one of the worst droughts in decades across Ethiopia. The incident had caused havoc on Ethiopia's summer rains. This comes on the heels of failed spring rains, and has driven food insecurity, malnutrition, disease outbreaks and water shortages in affected areas of the

country. Abay-Beshilo livelihood zone of South Wollo (in north central Ethiopia) is among the drought prone areas of the zone and that was heavily stricken by the impacts of El Niño Phenomena. In these areas, the less than usual rain had caused drought which in turn triggered severe food insecurity. The severity was the result of a combination of factors that includes pre-El Niño failure of the spring rains and El Niño induced late onset, erratic and early cessation of the main summer rains. As a result, smallholder farmers had encountered total failure of both *belg* (small rain season which lasts from February to April) and *Kiremt* (large rain season which lasts from June to September) of 2015/2016 harvesting year. Due to this, a significant number of household heads were in need of emergency food aid for their sustenance. Such circumstances had adversely affected the educational system and students were forced to drop out or frequent absenteeism from schools due to shortage of food; and involved in supporting their families in finding food and/or engaging in household chores. Furthermore, students who came to school with inadequate food or empty stomach would not be attentive (lacks concentration) and has negative implication in their performance. It is believed that children who are hungry or chronically malnourished are less likely to learn attentively. Families which were under the siege of drough and consistent food aid had no option than withdrawing their children from schools. When the worst comes, such families, together with their school aged children, might be forced to migrate into another area which makes their life more complicated. Despite the particular vulnerability of children, few studies have investigated how climate change would affect child development and well-being (Orazem and Gunnarsson, 2003; UNICEF, 2011b); and the impact of climate change on education (which is the bedrock and the wheel on which other developmental effort revolves) has got little attention (Mbah, 2014). In this regard, Doherty and Clayton (2011) urged that the psychological and social impact of climate change should be addressed adequately as of biodiversity and economic impacts. UNICEF (2008) also underlined that the potential impact of climate change on children has been a critical missing element from the climate change discourse. The report further argued that '…*whilst there is a growing body of literature on the links between climate change and vulnerability, particularly in relation to the impact of natural disasters, research and advocacy activity on climate change and children specifically is less developed'.* UNDP (2007) and ISCA (2008) asserted that the cumulative effects of extreme weather events on both initial enrolment and longer-term educational performance are not well studied. Most studies at global level in general and in developing countries like Ethiopian particular (see for example Woldeamlak, 2007; Workneh *et al*., 2011; Cunha *et al*.,2012; Gutu *et al*., 2012; Nkondze *et al*., 2014; Oyekale, 2014) gave due emphasis on the impacts of climate change on livelihoods and ecosystems. Its adverse impact on students' academic performance has been little researched. As a result, this study opts to investigate the impacts of climate change induced shocks on the academic performance of grade eight students in their regional examination. The output of the research would enable to shed light there by contribute to reduce the adverse impact of climate change induced challenges on academic performance of students. By doing so, it enriches the existing literature on the nexus between climate change and human capital formation. Furthermore, it would provide important recommendations which the policy planners may adopt for future intervention.

MATERIALS AND METHODS

Description of Study Area

South Wollo administrative zone (in North central part of Ethiopia), is found between $10^0$10'-$11^0$41'N and $38^0$25'-$40^0$05'E. The zone consists 25*woredas* and bounded from the south by north Shewa zone and Oromia National Regional State, from the west by east Gojjam zone, from the northwest by south Gonder zone, from the north by north Wollo zone and on the east by Oromia special zone and Afar national regional state. The total number of people lived in rural and urban areas of the zone is 88% and 12% respectively, of which the urban dwellers are lower than the national average (BoFED, 2009).

The main economy of the zone is crop production supported by rearing of livestock. Agriculture is constrained by poor soil fertility, soil degradation and erratic rainfall. As a result, most parts of south Wollo are chronically food insecure. Crop production follows a bimodal rainfall regime (short *belg* and longer *Kiremt* rains) leading to two harvesting periods. As evidenced by zonal economic and finance development bureau, most *woredas* in zone are drought prone and were critically affected by the El Niño induced drought of 2015/2016. Borena *woreda* (*woreda* is an administrative unit equivalent with district) is found in Southwestern part of South Wollo zone between $10^0$30'30"-$10^0$50'55" N and $38^0$25'35"- $38^0$55'20" E (Lakew *et al.*, 2007) (Figure 2). It is bordered on the South and Southeast by Wegede *woreda*, on the West by East Gojjam zone (separated by Abay River) and Mehal Saint *Woreda*, on the North by Saint *Woreda* and on the Northeast by Legambo wereda (BoFED, 2009). The *woreda* comprises 35rural and 2 urban kebelles; of which 16kebelles were severely affected by the 2015/16 El Niño induced drought (either partially or totally). According to the *woreda* finance and economic development office estimation, the total population of the *woreda* (as of 2016 estimate) was 169, 869 (of which 50.7% were males and 49.3% females.

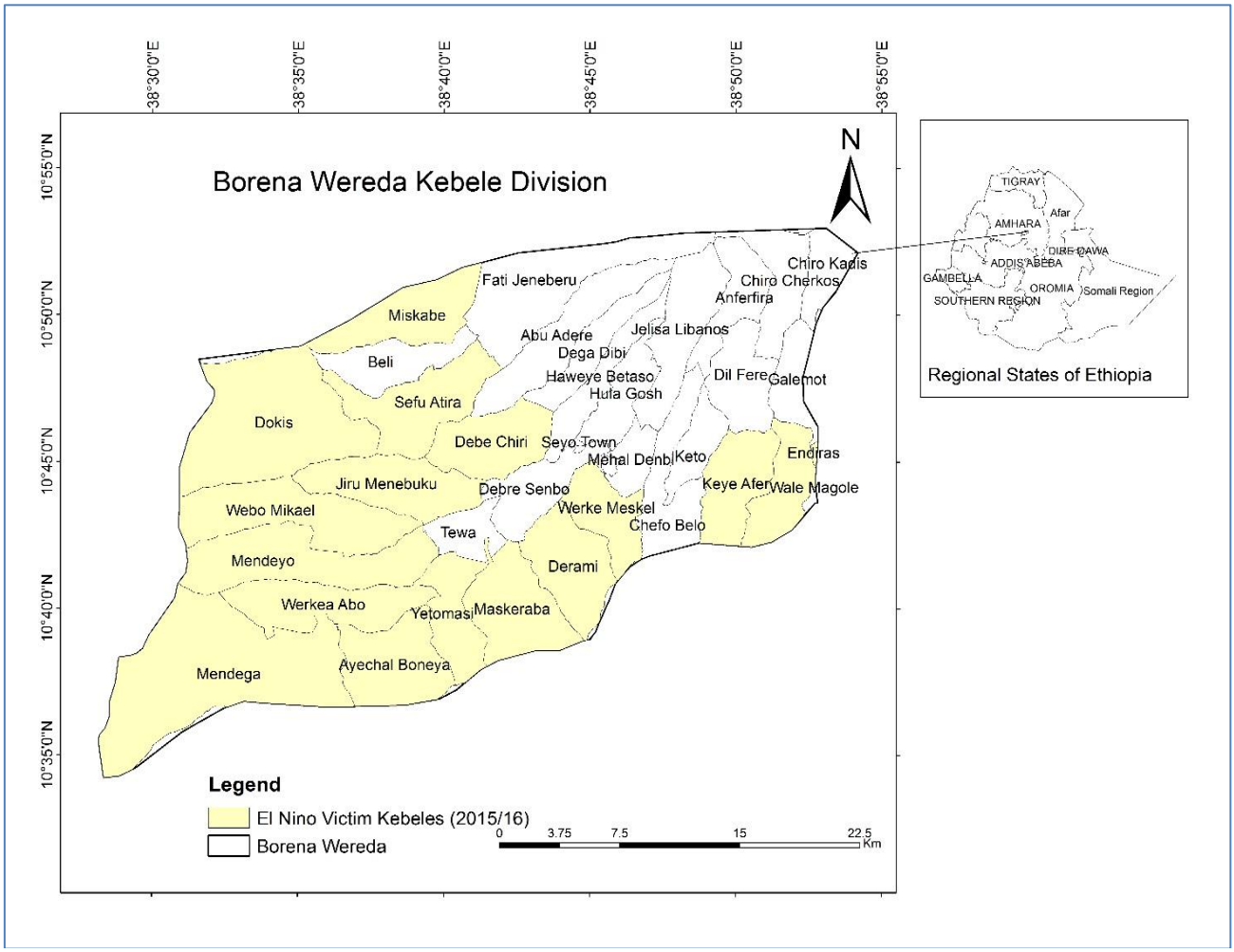

Figure 2: Relative location of the study area

The urban dwellers constituted around 7percent-which is much lower than the average of the zone (12%), region (12.6%) and country (16.1%).

With a total area of 1000.78km^2, the population density of the *woreda* is around 169.7 persons/km^2 which is higher than the average population density of the zone (148.6 persons /km^2), Amhara National Regional State (ANRS) (101.2persons /km^2) and the country as a whole (98.5 persons /km^2). The elevation of Borena *woreda* ranges from 1100 meters to more than 3700 meters which enables the *woreda* to have *kola* (32%), *woina dega* (47%), *dega* (20%) and *wurch* (1%) agroecologies. The annual mean temperature and precipitation are 18^{o}c and 1200 mm respectively (BoFED, 2009). Mixed farming is the dominant economic activity of the *woreda* which includes crop production and rearing of livestock (Woldegabreil, 2003).

Design of the study and source of data

Ex-post facto research design (using existing demographic characteristics and academic achievement result of students for2016 academic year in regional examination-which was obtained from *woreda* educational office) has been employed in this research. Regional results are preferred than the school based examination results because standardized admissions tests are good predictors of students' achievement (Lauzon, 2001) and can measure performance more consistently than examinations prepared at school level. Since it was difficult to know the result of the same student had El Niño phenomena were not occurred, comparison was carried out between the performances of students from El Niñostricken and relatively free junior secondary school students. The presumption made under such scenario is possibility of little disparity between students from El Niño prone and free schools in terms of other attributes (like age and family socio-economic status) which could have impact on performance. To substantiate the results obtained from quantitative analysis, key informant interview was carried out with expertise from *woreda* educational department and

informal interview with teachers, students and parents form victim schools were also undertaken.

Target Population, Sampling methods and Samples

Multistage sampling technique has been employed for this study. First, schools were categorized into two based on their extent of exposure to 2015/2016 El Niño-driven drought as victim and free schools. From each category, representative schools were selected randomly. Based on this, 11 victim junior secondary schools and 8 non-affected schools were selected (the decision on the number of schools from each scenario was done based on personal judgment by taking their representativeness). Once the schools were selected, the result of all grade eight students from the selected schools has been included in the study. Based on this, 1210 students (599 from El Niño stricken and 611 from non-victim schools) were taken as a sample. In this study, since their parents are less likely to engage in agricultural activities, schools from urban and sub urban areas were not included as target population. As a result, Borena, Legamara, Soye and Tewajunior secondary schools were excluded from the very beginning.

Data Analysis and Interpretation

The disparity of academic performances between students from El Niño victim and free schools has been analysed using independent-sample t-test (separate comparison was also computed by taking gender into account). Moreover, Chi-square test was used to examine the presence of difference in proportion between victims and El Niño free schools among the top and bottom achieving groups. To make the analysis more attractive, histograms and population pyramids were used. Linear regression analysis was computed to estimate the impact of different explanatory variables on the effect of overall result including effect of El Niño. The statistical analysis has been triangulated with qualitative data obtained from interview. The linear regression was modeled as:

$$Y=\beta_0 +\beta_1X_1+\beta_2 X_2 +\beta_3X_3+\beta_4X_4+\beta_5X_5+\varepsilon$$

Where: Y is the dependent variable (regional total result); X_1 is sex of the students (1= male; 0=female), X_2 is age of the student in years; X_3 is being El Niño victim of 2015/2016 or not (1=affected; 2=not affected); X_4 is Mathematics result; X_5 is English result; while β_0, $\beta_{1\text{-}5}$and $\varepsilon$are the constant, coefficients of explanatory variables and error term respectively

RESULTS AND DISCUSSION

As depicted in Table 1, regional examination result of 1210 students (49.5% from El Niño victim schools and the remaining 50.5% from El Niño free junior secondary schools) was analysed. Around 53.9percent of the samples were male and females comprised 46.1percent. The mean age and average result were found 14.97 years and 53.2points respectively. During 2015/16 academic year, 12055 students (from junior and elementary schools) and 4761students (from pre-primary levels) were exposed to El Niño impacts. School feeding was launched and a total of 16,816students had received the service for about 6-8 months.

As dipicted in Table 2, independent samples *t*-test was applied to invetigate whether mean result of students from El Niño prone and free schools differ significantlyor not. The result showed that students from El Niño free schools had relatively scored (53.92$\pm$9.8) better than students from victim schools (52.46$\pm$7.1) and the mean difference was statistically significant (t (1208) =2.98, p= <0.05, two-tailed). The population pyramid in Figure 3 also illustrated the presence of difference in performance between the two groups. Gender wise comparison was also carried out to detect whether there is difference in impact based on the sex of students. In most literatures, girls are expected to be affected by climate change than boys. But in our study, statistically significant mean difference was found between boys (t (650) =2.75, p=< 0.05, two-tailed) where the mean result of boys from El Niño free schools was higher (54.61$\pm$9.9) than students form victim schools (52.75$\pm$7.2). A study by AKLDP (2016) in northwestern Ethiopia revealed that, during drought periods, more school aged boys (14-16years old) were likely to dropout and migrates to nearby towns in search of casual wage labor than girls. Teshome and Gamachu (2016) on their part reported that the rate of school dropout in pastoral communities of Southern Ethiopia was found to be higher for boys than girls. Similar result was reported by Muthaa *et al*. (2013**)** inIgembe District of Kenya where the rate of dropout of male pupils mainly for child labor was a serious problem which eventually affects their performance. Relatively higher disparities between boys in our study might be due to their frequent absenteeism to support their families. Though the mean result of girls was higher by 1.08points, on average, for those from El Niño free schools, the difference was not found to be statistically significant. The population pyramid figure also depicts the presence of difference particularly for high points between El Niñovictims and free schools (both in overall, male and female groups). Supporting the statistical test result, an informant from Dokis (one of the most affected kebelles in the *woreda*) shared his experience regarding the challenge while he was at grade 8 during El Niño period (he joined grade 9 during the time of interview-

Table 1: Demographic characteristics of respondents

El Niño affected or not				Sex			Age
Option	N	%			N	%	Mean=14.97(±1.12)
Yes	599	49.5		Male	652	53.9	
No	611	50.5		Female	558	46.1	Average result
Total	1210	100		Total	1210	100	53.2(±8.6)

Table 2: Independent samples t-test result based on average result

Category	Affected by El Niño?	N	Mean	SD	MD	t-test	p-value
Over all	Yes	599	52.46	7.120	1.47	2.98 (1208)	0.003
	No	611	53.92	9.793			
Male	Yes	334	52.75	7.195	1.86	2.75 (650)	0.006
	No	318	54.61	9.913			
Female	Yes	265	52.09	7.021	1.08	1.51 (556)	0.131
	No	293	53.17	9.622			

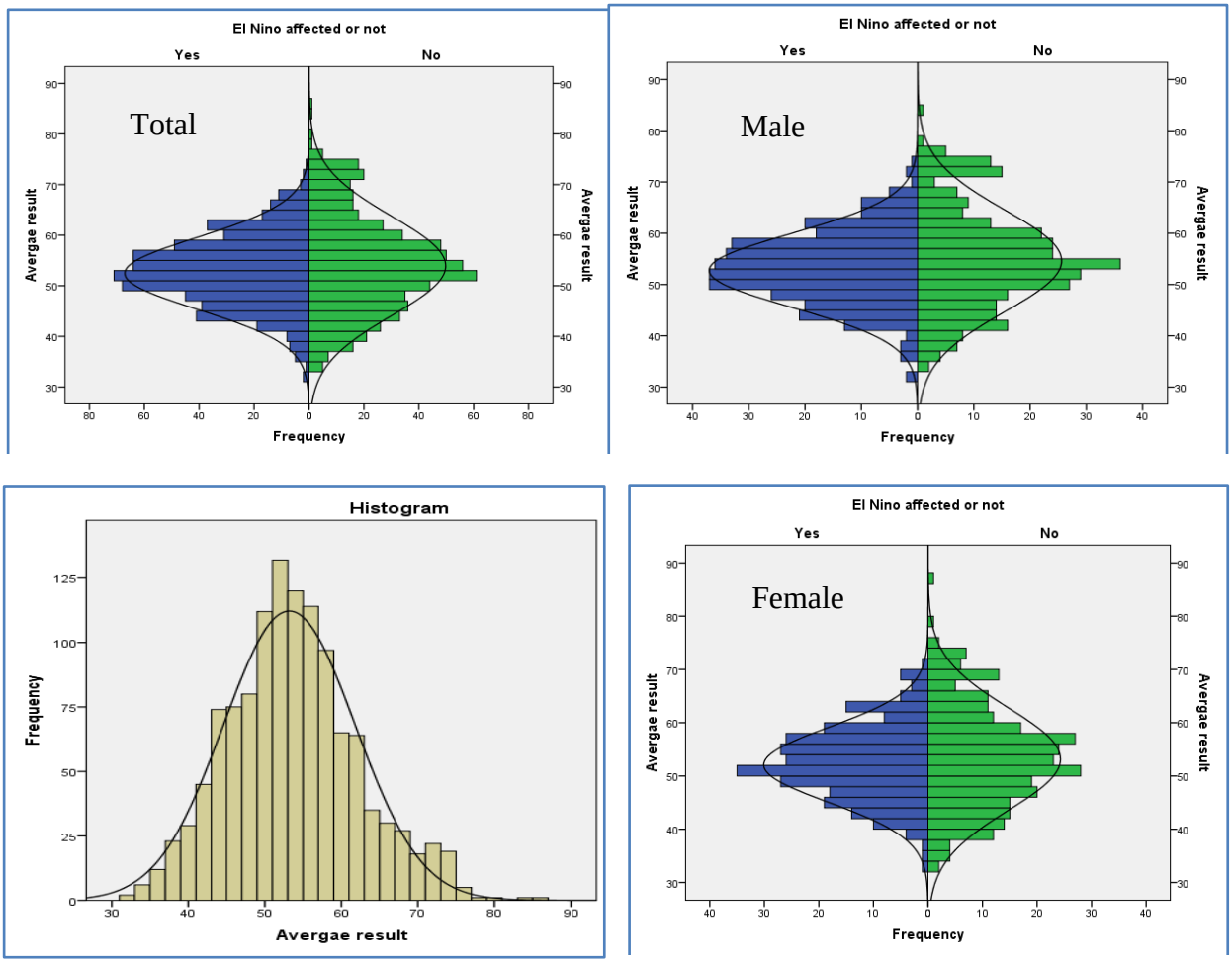

Figure 3: Poulation pyramid and histogram (based on average result)

26/01/2017) as: '*failure of rainfall hampered not only crop production but also availability of pasture and water for domestic animals. It was the tasks of school aged boys to follow livestock; and search pasture areas and water.*

Being absent from schools at least two days a week was mandatory for boys which adversely affected our result in regional examination'. This testimony is clear evidence that boys in rural areas are forced to miss classes to support their families mainly in field works. A parent from another victim kebele also confirmed that boys were obliged to engage in outdoor activities like farming and keeping animals while girls relied on domestic chores. According to this informant, herding is time intensive and incompatible with regular school attendance of boys particularly during the dry season. At times of disasters, animals have to be taken out for many weeks for search of feed and water. In this case, it is the boys who are dropping out of school and responsible to follow herds. A 17 years old girl (attending grade 9 during the time of interview) from one of the El Niño victim kebelles has shared her experience of the 2015/16 El Niño phenomena that:

> …availability of water for domestic purpose had been increasingly becoming scarce. It took more than two hours to get water and since its volume decreased especially during dry seasons we were forced to wait a long. Girls were responsible to fetch water and have to go to the water sources as early as possible not only to queue first but also to return back to school on time. Unfortunately, it was rear to reach school on time; late comers in most cases were female students. The El Niño incidence had made the situation much worse; we have forced to walk long distances in search of water daily which negatively affected our school attendance.

In line with this report, a study by Ashton *et al*. (2016) found that the most common reason for student's absenteeism or dropout in southern part of Ethiopia was to assist with chores in the home or farm. A 17 years old boy from Menedega kebelle (among the severely affected kebelles) narrated the situation of the 2015/16 El Niño phenomena with regret. He reported that, after the failure of main rainfall, it became challenging to get water and forage for livestock. As a result, he was forced to drop out his education in November to follow the herds of the family soon after registering for school in September.

A teacher from El Niño victim school explained that teaching-learning process in *kolla* agroecology in general is challenging due to the high temperature and critical scarcity of drinking water mainly after March. But what makes the 2015/16 academic year special was the failure of crop production and critical shortage of water. Students were inattentive in the class room due to the cumulative effect of shortage of food and water, extremely high temperature, being tired due to domestic chores and psychological disturbance. Absenteeism and being late into class were serious problems; no matter how the school feeding intervention had reduced the phenomena. Besides, one key informant from the educational office mentioned that, the 2015/16 El Niño was one of the worst ever drought which severely affected most kolla kebelles of Borena Woreda. Had it not been with the commencement of the school feeding program, which was initiated by the regional education bureau, the management of school dropouts in these El Nino prone schools was practically difficult. Thus, no matter how the school feeding program was started lately, it had played a pivotal role in reducing the occurrence of dropouts.

A chi-square test of independence was carried out (Table 3) comparing the proportion of students from El Niño victimized and relatively free schools in the top ten and bottom ten achieving groups. A significant interaction was found (χ^2 (1) = 35.78, p<0.01) for top achievers and (χ^2 (1) =10.59, p<0.01) for the bottom achieving groups. More students from El Niño free schools were represented in the top achieving groups than expected as compared with the proportion from victimized schools. Though the opposite was found in bottom achieving groups, the proportion of students in the top achieving category (10percent from the top achieving groups was taken) from victimized schools was very low (only 27 students as compared with 94 students from El Niño free schools). The implication here is that climate change induced shocks do have adverse impact on academic performance of students. On the other hand, the proportion of students in the low achieving groups was found to be less in El Nino prone schools as compared with their counterparts.

Linear regression was employed (Table 4) to estimate the overall result of students in regional examination based on different explanatory variables (including the effect of El Niño phenomena). The covariates used in the model were being in El Niño prone area (1=yes; 2=no), sex of the student (1=male and 0=female), age of the student in years, English and Mathematics results in regional examination. The ANOVA result was found to be statistically significant which implies that variables included in the model determines the average result of students. The R-squared result of 0.564 proved that, 56.4percent of the variation in average result was attributed due to the cumulative effect of the covariates. Multicollinearity problem was tested using VIF which granted absence of such problem. As depicted in Table 4, all variables except age of students were found to be statistically significant (p<0.05) in affecting students' result in regional examination. Being male and from El Niño free schools would increase the average result by 0.88 and 2.85pointsholding other variables at their constant. In this model, English and Mathematics results were found to be best predictors (see standardized beta values for their specific contribution)of average result which implies the need to give due attention for these

Table 3: Chi-square test based on top and bottom achievers (10%)

Category	El Niño Victim	N	Observed	Expected	χ^2	p-value
Top	Yes	599	27	59.9	35.78	.000
	No	611	94	61.1		
	Total	1210	121	121		
Bottom	Yes	599	42	59.9	10.59	.001
	No	611	79	61.1		
	Total	1210	121	121		

Table 4: Linear regression result

ANOVA result	Sum of Squares	df	Mean Square	F	Sig.
Regression	50462.902	5	10092.580	311.553	.000
Residual	39002.890	1204	32.394		
Total	89465.793	1209			
Dependent Variable: Average result($R = 0.751$ and $R^2 = 0.564$)					

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	22.834	2.467		9.256	.000		
El Niño affected or not	2.851	.334	.166	8.526	.000	.958	1.044
Sex of the student	.875	.335	.051	2.615	.009	.962	1.039
Age of the student	-.050	.154	-.006	-.322	.748	.901	1.110
English result	.544	.022	.469	24.495	.000	.988	1.012
Maths result	.735	.026	.547	28.060	.000	.954	1.048

subjects so as to achieve better performance.

CONCLUSION AND RECOMMENDATION

Climate change induced shocks could have adverse impact on academic performance of students in different ways. It causes scarcity of water in schools for safe drinking and sanitation; children tend to miss classes to help their families searching for water; hunger and malnutrition results in inattentiveness in the class; leads for displacement of families and school dropout; loss of assets and livelihoods has compromised the capacity of parents and caregivers to send their children to school as covering costs of uniforms, school materials and food is becoming difficult; heat waves make difficult to cover curriculum properly; drought-affected children might exhibit behavioural changes such as uncertainty, disturbance, hopelessness, fear and anxiety due to prevailing shortage of food and water as well as lack of rest; it intensifies the prevalence of water/air borne diseases;

In this study, we tried to examine the impact of climate change, particularly, the 2015/16 El Niñoincidence on the academic performance of students in Borena *woreda* of south Wollo zone in north central Ethiopian highlands. It was found that, El Niño induced drough had impact not only on agricultural production but also on academic performance of students. Students from relatively El Niño free schools have scored better result than their colleagues. In terms of gender, male students were more affected by El Niño where their mean result was found to be less than their counterparts. Besides, the proportion of students from victimized schools in top achieving group were found less than expected as compared with students from free schools. The result of our study provided a clue for the presence of impact attributed by climate change induced shocks. Based on these findings, we recommended that the concerned governmental and non-governmental bodies should give due attention regarding the impact of climate change on academic performance in their programs and interventions. Moreover, availing water at school compounds could help to minimize the impact. School feeding and any form of intervention should be undertaken ahead of time or immediately after the occurrence of the drought to overcome the problems related to school dropout, class room absenteeism, and poor academic performance. Special tutorial programs should be arranged for those students who have forced to miss classes due to shocks before seating for final examination. Schools can also be used as role models to climate change programs and

dissemination of information about climate change impacts and adaptation strategies.

LIMITATION

Variables for linear regression were used only the available ones in student's master list and it did not include all possible factors which would probably affect students' performance. Moreover, this research did not attempt to investigate the difference in performance of students from selected schools during non-ElNiño years.

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REFERENCES

AKLDP (2016). El Niño in Ethiopia: impacts of drought on young rural women in Amhara National Regional State; field notes. The Agriculture Knowledge, Learning, Documentation and Policy Project (AKLDP). Accessed from www.reliefweb.int/.../ethiopia/el-ni-o-ethiopia-impacts-drought-youngon 9/02/2017

Alderman H, Hoddinott J and Kinsey B (2006). Long term consequences of early childhood malnutrition. *Oxford Economic Papers*; 58(3): 450-474. Doi.org/10.1093/oep/gpl008

Ashton RA, Takele Kefyalew, Batisso E, Tessema Awano, Zelalem Kebede, Gezahegn Tesfaye, Tamiru Mesele, Sheleme Chibsa, Reithinger R and Brooker SJ (2016). The usefulness of school-based syndromic surveillance for detecting malaria epidemics: experiences from a pilot project in Ethiopia. BMC Public Health; 16:20. DOI 10.1186/s12889-015-2680-7

Bartlett S (2008). Climate Change and Urban Children: Impacts and Implications for Adaptation in Low- and Middle-Income Countries. London: IIED.

BoFED (2009). Development indicators of the Amhara national regional state of the year 2008. 6th edition; Bahir Dar, Ethiopia.

Crespo CJ (2009). Natural disasters and human capital accumulation, policy research working paper.The World Bank, Washington DC.

Cunha D, Coelho A, Féres J, and Braga M (2012). Impacts of climate change on Brazilian agriculture: an analysis of irrigation as an adaptation strategy. Selected Poster prepared for presentation at the International Association of Agricultural Economists (IAAE) Triennial Conference, Foz do Iguaçu, Brazil, 18-24 August, 2012

Danysh HE, Gilman RH, Wells JC, Pan WK, Zaitchik B, Gonzálvez G, Alvarez M and Checkley W (2014).El Niño adversely affected childhood stature and lean mass in northern Peru. *Climate change responses*; 1(7): 1-10.

Doherty TJ and Clayton S (2011). The Psychological Impacts of Global Climate Change. *American Psychological Association*; 66(4): 265–276. DOI: 10.1037/a0023141

Gutu Tesso, Bezabih Emana and Mengistu Ketema (2012). A time series analysis of climate variability and its impacts on food production in North Shewa zone in Ethiopia. *African Crop Science Journal*; 20(2): 261–274.

International Save the Children Alliance (ISCA) (2008). Children, Climate Change and Disasters: An Annotated Bibliography. Retrived from http://www.eldis.org/go/topics/resourceguides/climate–change/key–issues/children–climate–change–and–disasters on 10/02/2017

Jensen R (2000). Agricultural volatility and investments in children. *American Economic Review;* 90(2):399-404. Doi.org/10.1257/aer.90.2.399

Lakew B, Fanuel K and Gizachew A (2007). Biodiversity assessment of the proposed Denkoro-Chaka National Park. ANRS; Bahir Dar, Ethiopia, 2007 (unpublished).

Lauzon D (2001). Gender Differences in Large Scale, Quantitative Assessments of Mathematics and Science Achievement. Paper Prepared for the Statistics Canada-John Deutsch Institute-WRNET Conference on Empirical Issues in Canadian Education, Ottawa, Nov. 23-24.

Mbah BA (2014). Challenges of climate change on provision of and accessibility to quality education in Nigeria. *International Journal of Education Learning and Development;* 2(4):26-32

Muthaa GM, M'muyuri MM, Bururia D and Mwenda EE (2013). Dropout among Male Pupils in Primary Schools of Igembe District, Kenya. *Creative Education*; 4(3):180-184. DOI:10.4236/ce.2013.43026.

Nkeiruka F (2014). Climate Change and Implication for Senior Secondary School Financial Accounting Curriculum Development in Nigeria. *Journal of Education and Practice*; 5(26): 153-157

Nkondze MS, Masuku MB and Manyatsi AM (2014). The Impact of Climate Change on Livestock Production in Swaziland: The case of Mpolonjeni Area Development Programme. *Journal of Agricultural Studies;*2(1): Doi:10.5296/jas.v2i1.4416.

Orazem PF and Gunnarsson V (2003). Child labour, school attendance and performance: A review.

International Labour Office/International Programme on the Elimination of Child Labour Working Paper.

Oselumese IB, Omoike D and Andrew O (2016). Environmental influence on students' academic performance in secondary school. *International Journal of Fundamental Psychology and Social Sciences*;6(1):10-14. DOI:10.14331/ijfpss.2016.330058.

Oyekale AS (2014). Impacts of Climate Change on Livestock Husbandry and Adaptation Options in the Arid Sahel Belt of West Africa: Evidence from a Baseline Survey. *Asian Journal of Animal and Veterinary Advances;* 9(1): 13-26.

Tassew Woldehanna and Adiam Hagos (2015). Economic shocks and children's dropout from primary school: implications for education policy in Ethiopia. *Africa Education Review*; 12(1); 28-47. DOI: 10.1080/18146627.2015.1036548

Teshome Sirak and Gamachu Gishe (2016). Prevalence of Primary School Dropout in Bale Zone Pastoralists of Oromia Region, South eastern Ethiopia. *Open Access Library Journal*, 3: e2446. Doi.org/10.4236/oalib.1102446

UNCED (1992). Agenda 21. The United Nations Programme of Action from Rio. United Nations, New York.

UNDP (2007). Fighting climate change: human solidarity in a divided world, human development report2007/08, UNDP, Palgrave McMillan, New York

UNESCO (2012). Education Sector Responses to Climate Change: Background Paper with International Examples. Asia and Pacific Regional Bureau for Education; Bangkok, Thailand.

UNICEF (2015). Ethiopia: Drought Crisis Immediate Needs Overview. Retrived from https://www.unicef.ie/.../4-6-million-children-require-life-saving on 8/2/2007.

UNICEF (2011a). Children's Vulnerability to Climate Change and Disaster Impacts in East Asia and the Pacific. UNICEF East Asia and Pacific Regional Office; Bangkok, Thailand

UNICEF (2011b). Exploring the Impact of Climate Change on Children in SouthAfrica. Pretoria: UNICEF South Africa

UNICEF (2008). Our climate, our children, our responsibility: the implications of climate change for the world's children. www.unicef.org.uk/climatechange(Accessed on 6/01/2017)

Walker D (2012). Childhood vulnerability to climate change in marginalized Vietnamese communities: the case for participation; background note.

Woldeamlak Bewket (2007). Rainfall Variability and Agricultural Vulnerability in the Amhara Region, Ethiopia. *Ethiopian Journal of Development Research;* 29 (1): 1-34.

Woldegebreil G (2003). The Denkoro high land in South Wollo: A preliminary assessment on the ecological significance of Denkoro highland and management options. Environmental protection, land administration and use authority. ANRS: Bahir Dar.

Workneh Negatu, Ali Hassen and Abinet Kebede (2011). A comparative analysis of vulnerability of pastoralists and agro-pastoralists to climate change: A case study in Yabello *Woreda* of Oromia region, Ethiopia. *Ethiopian Journal of development research*; 33(1): 61-95.

World Bank (2010). World development report: Development and climate change. Technical report, World Bank.

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Conceptualizing Data in Analyzing Occupational Hazards among Health Workers in Specialist Hospitals, Port Harcourt, Rivers State, Nigeria

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The study conceptualized data in analyzing occupational hazards among health workers in specialist hospitals, Port Harcourt, Rivers State. Nigeria. A total of 470 health workers participated in the study. Stratified random sampling technique was used to select the subjects. A validated 45-item instrument titled Correlates of Occupational Hazards among Health Workers in Specialist Hospitals (COHHWSH) was used for data collection. Cronbach alpha was used to determine the reliability of the instrument to obtain an index of 0.83 for the entire instrument. Eight research questions and eight hypotheses guided the investigation. Data collected where coded for analysis using SPSS version 21 and Eviews statistical packages. Descriptive statistics of percentage and mean were used to analyze the demographic data and research question 7 and 8. Furthermore, Linear Regression Analysis was used to answer and test research questions and hypotheses (1 to 6) and ANOVA was used to test the hypotheses 7 and 8 at .05 alpha levels. Findings established that infrastructure and staff attitude are positive significant predictors of occupational hazards, remuneration, personnel, working environment and management style were not significant predictors of occupational hazards among health workers; Age and working experience do not significantly influence occupational hazards among staff. It was therefore recommended that level of infrastructure in hospitals should be improved for the efficient delivery of duties of health workers and health workers should try to develop positive attitude towards duties because a positive attitude to work is likely to lead to reduced occupational hazard among others.

Key Words: Conceptualization, Occupational hazards, Health Workers, Specialist Hospitals

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INTRODUCTION

The WHO (2012) has described “health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, Occupational Health is the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people, and people to their jobs” (ILO/WHO, 2001). According to them, “Occupational Health ought to go for the advancement and support of the most noteworthy level of bodily, intellectual and communal affluence of workers in very jobs; the counteractive action amongst specialists takeoffs from wellbeing brought about by their working conditions; the assurance of specialists in their

job from dangers coming about because of components unfriendly to health; the setting and upkeep of the specialist in a word related environment adjustment of effort towards human and of every human to his employment".

Concept of Occupational Health Hazard

Occupational health is the branch of health science concerned with the promotion and safety of the wellbeing, safety and benefit of personnel of all categories (Adeniyi, 2002). Occupational health as the study of factors or conditions influencing the health and wellbeing of the workers not only in their work places but also in their homes, He also indicated that it was concerned with the detection, evaluation and control of environmental and safety hazards associated with work environment and their homes "Work related wellbeing is at the focal point of feasible advancement as stipulated in WHO worldwide technique of Occupational Health for all by the year 2000, (WHO, 2000) this will empower the labourers to know the base standard required in any work environment particularly at the wellbeing divisions.

The "occupational health hazards among health care workers" could be understood from physical-chemical-biological-mechanical and psychological dimensions. Accordingly, it is a circumstance which poses a danger to human health and well-being. This definition is hereby adopted for this study. Occupational hazards is said to be anything or condition or omission or commission in the work environment which carry or have the potential of engendering deleterious health condition among workers employed in such workshop or plant (Nwankwo, 2003). The healthiness care personnel may be unprotected to five categories of dangers, dependent upon his profession. (Nwankwo 2003, Lucas & Gilles 2003, Park 2007): physical, chemical, biological, mechanical, and psychological hazards. The physical hazards include heat, noise, accidents, poor ventilation, radiation and pressure. Trauma rising after dangerous atmospheres accounts for a great section of avoidable man disease, and sound in the place of work is liable for the most predominant work-related damage: earshot loss or lasting deafness. Sound is a healthiness dangers in numerous activities.

The impacts of commotion are of two sorts: sound-related impact which comprise of brief or perpetual listening to misfortune and non sound-related impacts which comprise of anxiety, weakness, impedance with correspondence by discourse, diminish effectiveness and irritation. Presentation to vibration might likewise deliver wounds of the joints of the hands, elbows and shoulders. The radiation risks contain hereditary changes, mutation, tumor, leukemia, depilation, ulceration, sterility and in amazing cases demise.

Chemical hazards, on other hand, are inorganic materials, for instance, lead, mercury, arsenic, cadmium, and asbestos, a characteristic substance, for instance, polychlorinated biphenyls (PCBs), Vinyl chloride, and the pesticide DDT. Of particular concern is the conceded potential for the chemicals to make tumor, as in the occasions of lung infection and mesothelioma brought on by asbestos, liver development achieved by vinyl chloride and leukemia realized by benzene. Minamata affliction, achieved by sustenance spoiled with mercury, and Yusho disease, from support contaminated with chlorinated furans are outlines of exceptional destructive ailments happening in non word related settings. Substance operators act in three ways which incorporate nearby activity, inward breath and ingestion. Local actions of some chemicals cause dermatitis, eczema, ulcers and irritation. Inhalation of chemical substances comprises of dusts, gases metal and their compound, which are releases into the atmosphere during crushing, foundry, quarry among others and strictly hazardous to healthful living. Occupational disease might likewise come about because of ingestion of synthetic substances, for example, lead, mercury, arsenic, zinc, phosphorus and these substances are gulped in moment sums through defiled hands, sustenance or cigarettes.

The hazards can be classified as endogenous or exogenous. Exogenous hazards are those brought into the hospital from the outside. For example, a nurse who has undiagnosed pulmonary tuberculosis may spread this among patients and staff before a diagnosis is made. Endogenous sources are those that are transmitted to health care workers from patients (Blood, sera, laboratory specimens) in the course of their work. Park (2007) maintained that it is convenient to classify hospital hazards according to their sources. Consequently all health personnel's that are exposed to the same sources run the same risks depending on the degree of exposure (ILO, 1990). Dangers owing experience of diseased body fluid or further physique liquids of patients are: HIV, HBV, HCV, Cytomegalovirus and protozoa including malaria parasites. Occupational groups among health workers that are exposed to various occupational health hazards include all those involved in invasive procedures (doctors, nurses, endoscopists, workers in renal dialysis suites), technicians of various categories working in different places (theatres, injection room, accident and emergency department, laboratories and maternity) and cleaners or housekeeping staff. Location of accidents in hospitals environment include wards, theatres, intensive care units, various clinics, dialysis units, accident and emergency departments, others like mortuary, and instrument repair workshops. Sources of injuries and occupational hazards include needles (assorted), lancets, scapel blades, dental material, sterilizers, autoclave and other skin piercing instruments.

Activities associated with accidents include;

administrating or drawing of injections with syringe, wrong disposal of syringe and needles, recapping of needles and syringes, suturing and related activities, cleaning waste bags containing sharp improperly disposed of, needle left in tray or and trolley, re-sheathing needle and passing instrument to doctor or nurse among others. According to Takala, (2000) the term “Occupation risk factor is defined as a chemical, physical, biological or other agent that may cause harm to an exposed person in the workplace and is potentially modifiable. Ergonomics, on the other hand, is the study of the relationship between people and their working environment. It combine all other factors like physical ,biological, mechanical, psychological and physical issues to improved workers efficiency and well being and maintain industrial production through the design of an improved workplace”. As a health worker, the first thing to do is to identify the hazards in the work environment and then put control measures in place. Health workers in this study refers to health personnel who had undergone specialized training for specified number of years in the care and management of the sick and licensed to practice. Occupational health problems issues among health laborers are issues of individual health workers", as well as issues identifying with the strength and security of labor/workplace, association of labor/administration rationality of the environment (WHO, 1995).

Classification of occupation hazard

There are 59 million medicinal services specialists around the globe, extending from direct care suppliers to restorative waste handlers. Social insurance specialists involve around 10% of the workforce in the European Union. Medicinal services is a high-chance area due to the high rate of business related wounds and infections. All the nations in the European Union are confronting a genuine absence of dynamic human services laborers. As an outcome, the extent of more youthful individuals in the working-matured populace will diminish, and the extent of more seasoned individuals in the working-matured populace will increment. Human services specialists have a tendency to resign sooner than laborers in different parts of the economy in view of business related anxiety and other work related wellbeing dangers Thirion A, FernándezMaciás E, Hurley J, Vermeylen G., (2007). Work related wellbeing and security of social insurance laborers in Europe The real working environment risks in the medicinal services segment are organic (flu, TB, HIV, hepatitis), concoction (drugs, disinfectants, pesticides), ergonomic (lifting, exchanges), stress/viciousness (staffing lack, shift pivot), and physical perils (radiation, heat, mishaps) are.
As indicated by the following study, a considerable proportion of medical caretakers report having had the accompanying work related or business related ailments or wounds (1): Injury because of a mischance 13% (9.7% doctor's analysis); Musculoskeletal issue in the back, appendages or other body section 52.8% (28.7% doctor's determination); Cardiovascular infection 11.6% (9.1% doctor's finding); Respiratory illness 13.8% (9.2% doctor's conclusion); Mental issue 18.9% (5.4% doctor's analysis); Neurological or tangible sickness 19.4% (10.5% doctor's analysis); Digestive tract malady/condition 22.3% (11.3% doctor's analysis); Skin issue 27.7% (15.6% doctor's analysis) (European Foundation for the Improvement of Living and Working Conditions, 2001). Control can be connected at the wellspring of the peril, along the way between the source and the laborer, or at the specialist. Control at the source is favored. Peril acknowledgment is a critical part of the Joint Health and Safety Committee; the control of risks is a general obligation for business, the accompanying are the characterizations of danger among wellbeing specialists

Chemical: Bleach, lead, ruthless chemicals, flammables, solvents, poisonous vapors, allergens, radiation, and distinctive exposures every now and again found in exploration labs. Widespread compound standards have improved starting late, however necessity slacks in making countries. Where errand moving happens, staff may not be adequately arranged to handle chemicals properly. They may don't have an agreeable supply of spreads, gloves, and eyewear, and might work in structures with inadequate ventilation. A study revealed that 71% of Nigerian dental specialists concentrated on were every now and again displayed to risky levels of dental amalgam, which could achieve fluctuating hurting (Fasunloro&Owotade 2004). In various making associations where new advancements and compound methods are familiar with the wellbeing structure, the level of blend exposures is not adequately assessed, and additional examination is required.

Physical: Slips, trips, falls, physical strain, truly difficult work, extend periods of time, weariness, and savagery. health specialists might work in structures that don't meet security codes. Contingent upon the seriousness of a damage, fault might be set on the individual harmed. Lugah et al.(2010)stated that “a few societies think about torment as a shortcoming and ergonomics a superfluous solace as opposed to a preventive measure, In Malaysia, ergonomics was the zone of OSH where health specialists exhibited the minimum learning, For such reasons, health specialists may not report a harm or strain; in this manner, they frequently don't get legitimate treatment, and little is archived. In struggle circumstances, health laborers hazard their lives to achieve groups in need”. Also (WHO 2012) vied that the in “Afghanistan, Côte d'Ivoire, Democratic Republic of the

Congo, Iraq, Libya, Pakistan, Somalia, Sri Lanka, and the West Bank, health laborers, offices, drug stores, emergency treatment posts, and ambulances have been focused by warring groups (ICRC 2011). The issue of brutality against the health area in compassionate crises has developed such that it was particularly tended to at the 65th World Health Assembly".

Psychosocial: Anxiety, fear brought on by roughness, eager or verbal abuse, business related drug or alcohol usage, wretchedness, and intimidation in the workplace. These psychosocial dangers can have a grouping of different impacts.

Physiological: According to Housman, Jettingoff, &Cedillo (2007) "hypertension, strained muscles, cerebral pains, and headaches. Anxiety was recorded to increment cardiovascular ailment among health laborers in Colombia, Mexico, and Brazil .health laborers might will probably participate in undesirable practices, for example, smoking or liquor misuse, trying to soothe stress"

Passionate: Nervousness or disturbance, negative states of mind, and poor group assurance. In Ethiopia, health laborer anxiety was appeared to increment because of absence of all inclusive precautionary measure materials to shield themselves from organic liquids (Reda . 2010). A negative psychosocial environment might antagonistically influence connections with partners and patients and could improve the probability of physical harm. In territories intensely influenced by the AIDS pandemic, watching over vast quantities of to a great degree wiped out patients for whom they can do little can be unpleasant and take a passionate toll (Baleta 2008; Van Dyk 2007).

Cognitive: Energetic or verbal abuse, business related solution or alcohol usage, wretchedness, and intimidation in the workplace. These psychosocial dangers can have a grouping of different impacts: Forgetfulness, loss of center, lessened consideration, and forceful or hasty conduct. This could bring about procedural or judgment blunders, which decreases efficiency and administration procurement quality (Houtman, Jettinghoff, &Cedillo 2007). Psychosocial word related risks might be hidden underneath social standards and saw diversely relying upon the wellbeing laborer's sexual orientation, age, instruction, societal position, or impression of psychological wellness issues; in any case, they are the most drastically averse to be perceived as OSH perils in the work environment by wellbeing specialists in creating nation settings (on the same page.). In nations without contextualized psychological well-being assets and couple of specialists or analysts, psychosocial wellbeing administrations remain profoundly vilified and get to is low (WHO 2006).

Attitude: Another survey study was conducted by Odd, Kjell and Olar (2000) in U.S.A among catering personnel working on a drilling platform at the Continental Shelf in the North Sea. The motivation behind the study was to discover the elements in charge of word related dangers discernment in their working environment. Around forty respondents were utilized for the study. It was watched that twenty six respondents (65%) saw risks in their workplace more than others. By differentiating the compelling gatherings, i.e.; the high and low risks perceivers it was found that socio demographics, e.g.; sexual orientation, conjugal status, age and working background had no elucidating power.
Notwithstanding, the discoveries uncovered that the labourer fragment inclined to see high risks additionally reported higher level of copy out, uneasiness and despondency than did the low perils perceivers. They (the high perils perceivers) were likewise less fulfilled by their remain focused stage, and they reported more wellbeing issues also. The discoveries showed that dangers impression of risks go past unimportant "frosty discernment", additionally taking advantage of contrarily sentiments and passionate states.

Management Style: A study conducted by Olayemi (2005) at Psychiatric Hospital, Aro-Abeokuta which was aimed at assessing and increasing the level of awareness of occupational hazards among clinical psychiatric staff in Aro-Abeokuta. This was finished by recognizing risks and making proposals to avert them. The study populace comprised of specialist, medical attendants, advisor, social laborers, clinical clinician and expert therapist. A unique rundown of 101 clinical staff members was made for the study. Ninety six clinical staff reacted to the study giving a reaction rate of 96%. Information were gotten using self directed surveys that included inquiries on individual information, attention to word related risks, course participation, ownership of medical coverage strategy, wellbeing measured honed, and experience of word related peril while by and by. Information were investigated utilizing recurrence tables to show the reactions of the psychiatric staff. Where vital, cross organizations were done to decide the huge contrast between variables utilizing chi-square. The age appropriation of the staff went from 25 years to 55years. The age scope of 30-40 years had the most astounding recurrence (30.5%). Forty guys (half) and 36 females (45%) reacted to the study. The male ward I and II had the best number of staff with 28 individuals (35%).

METHODOLOGY

A descriptive survey design was used for the study. It

was deemed appropriate because it according to Nwankwo (2013) it describes and explains events as they occur in the natural setting. Information from the respondent was presented as it was investigated from the respondent. The design is one of the best available designs to a researcher who is interested in collecting an original data for the purpose of describing the population that is fairly large.

The population for this study consists of 3460 health workers in specialist hospitals in Rivers State. Three specialist hospital in Rivers State were used, they are University of Port Harcourt Teaching Hospitals (UPTH), with 2,600 health workers, Braithwaite Memorial Specialist Hospital (BMSH) with 750 health workers and Neuro Psychiatric Hospital(NPH) with 110 health workers.

The sample size for the study is 692 (20%) health workers. Before composing the sample for the study, the Taro Yamane Formula was used to determine the minimum sample size that could be selected from a population of 3460 health workers.

$$s = \frac{N}{1 + N(e)^2}$$

$$s = \frac{3460}{1 + 3460(0.05)^2} = 359$$

A total of 692 health workers was selected to participate in the study because it is advisable to use sample size higher than the minimum estimate given by the formula (Nwakwo, 2013). To select the 692 subjects from this 3460 health workers the "proportionate stratified random sampling technique" was used to obtain the sample size to ensure equal representation of each group in the sample, (see table 1).

The table 1 shows that 520 professional and non professional health workers in the specialist hospitals were selected from UPTH, 150 from BMSH and 22 from NPH making up a total of 692 health workers, representing 20 percent (%) of each stratum.

Research Instrument: A structured validated questionnaire tilted "Correlates of Occupational Hazards among Health Workers in Specialist Hospitals" (COHHWSH) in Rivers State. The questionnaire was of two parts; the first part is structured to gather information about personal data of the respondents, it has blank space for respondents to fill, or tick appropriately. The second part was on Occupational Hazard and its correlates among Health Workers of specialist Hospitals in Rivers State.

The instrument consisted of a total 45 items on the Occupational Hazards and its correlates as stated in the research questions with modified "4-point Likert Scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D)".

Validity of the Instrument: The instrument posed face and content validity, copies of the instrument(questionnaire) were given to the project supervisor and two other lecturers in the "Department of Human Kinetics and Health Education of the University of Port- Harcourt". The corrections and observations of the expert were used to produce the final draft of the questionnaire.

Reliability of the Instrument: The reliability of the instrument was determined through Cronbach Alpha method with 20 respondents of the Neuro Psychiatric Hospital, Rivers State. Twenty (20) copies of the questionnaire were administered to them, the responses from the questionnaire administered were scored, coded and transferred to (SPSS) for the computation of the internal consistency of the instrument (compound type) using the Cronbach Alpha method to be obtain the result in Table 2.

The researcher collected a letter of introduction from the Head of the "Department Human Kinetics and Health Education, University of Port Harcourt, Rivers State". The researcher used the letter to introduce her and purpose of the research to the respondents soliciting for their co-operation. A total of 692 copies of the questionnaire was administered directly to professional and non professional health workers. The filed questionnaire was collected immediately on the spot and some were retrieved on an agreed date and time by the respondents. A total of 470 copies of the questionnaire representing about 68% of the total was obtained. Further, sorted the questionnaire to identify the ones that are properly filed and separate them from the ones not properly field. The questionnaire was coded for analysis using SPSS and Eviews statistical packages. Descriptive statistics of percentage and mean were used to analysis data concerning the demographic data and research question 7 and 8. Furthermore, linear regression analysis was used to answer and test research question and hypotheses (1 to 6) and ANOVA were used to test the hypotheses 7 and 8 at 0 .05 alpha levels.

Table 3 showed that the relationship between infrastructure and occupational hazard among health workers in Specialist Hospitals, Rivers State was high and positive (Beta=0.283). The Adjusted R-squared of 0.078 showed roughly the contribution of 7.8% of infrastructure to occupational hazards among health workers in Specialist Hospitals, Rivers State. The regression equation, y=54.56+0.13x showed that any increase in the value of infrastructure(x) is not likely to

Table 1: Composition of Sample for the Study through proportional stratified random sampling technique

Hospital	UPTH	BMSH	NPH	Total
Population	2600	750	110	3460
Proportion	0.75	0.22	0.03	1.00
Selected size	520	150	22	692

Table 2.

Some correlates	N	Alpha coefficient α
Personnel	5	0.78
Remuneration	5	0.86
Infrastructure	5	0.69
Attitude	5	0.62
Environment	5	0.74
Management	5	0.69
Occupational Hazards	**N**	**Alpha coefficient, α**
Physical hazards	3	0.73
Psychosocial hazards	3	0.71
Biological hazards	3	0.69
Chemical hazards	3	0.79
Ergonomic hazards	3	0.68
All items of the instrument	**45**	**0.83**

Table 3: Descriptive statistics showing the pattern of responses of the respondents on each item of the instrument measuring the occupational hazard and its correlates

	Correlates of occupational Hazard			
SN	**Personnel**	**Mean**	**SD**	**Decision**
1	Most specialist hospital use auxiliary nurse in place of professional nurse	2.37	0.93	
2	Doctors are always assign to required/recommended numbers of patients	**2.50**	**0.67**	*
3	Nurses are always overstaff in most specialist hospital	2.31	0.82	
4	Health personnel are send for training regularly	**2.52**	**0.84**	*
5	Most workers skills matches the use of required equipment	**2.61**	**0.56**	*
	Remuneration			
6	Health workers are promptly paid	2.29	0.68	
7	Most health workers are given accommodation close to hospital	**2.60**	**0.81**	*
8	Health workers are always paid leave allowance	**2.60**	**0.76**	*
9	Most health workers are paid transport allowance	**2.57**	**0.77**	*
10	Most health workers are paid sick allowance	2.49	0.79	

Table 3: Continuation

	Infrastructure			
11	Specialist Hospitals has enough bed space for patients	**2.65**	**0.63**	*
12	Specialist Hospitals premises are design with enough packing space for workers	**2.53**	**0.69**	*
13	Health workers are given good offices space with ventilations	2.43	0.64	
14	Specialist Hospitals have good working equipment for the required operation	**2.51**	**0.74**	*
15	Specialist Hospitals has a stand for Ambulances in case of emergency calls	2.45	0.70	
	Attitude			
16	Hands are washed most time after services without antiseptic	2.49	0.69	
17	Most health workers handle some cases with hand gloves	2.40	0.77	
18	Used gauze/cotton are poorly disposed	2.45	0.64	
19	Refuse are left a long time before disposal	2.20	1.04	
20	Chemicals are poorly label at storage	2.41	0.78	
	Environment			
21	Most Specialist hospital has a store	**2.57**	**0.91**	*
22	Most Specialist hospital has dispensary unit	**2.63**	**1.00**	*
23	Most Specialist hospital has a special area for it's refuse disposal	**2.58**	**0.71**	*
24	A good Specialist hospital have enough bed space for patients with good arrangement for movement	**2.61**	**0.74**	*
25	Specialist Hospitals are regularly fumigated.	**2.79**	**0.90**	*
	Management	**Mean**	**SD**	**Decision**
26	There are no precaution policies in most Specialist hospitals	2.58	0.62	*
27	Risk assessment/evaluation procedure are not clear	2.68	0.77	*
28	Individuals feelings and health status are not considered before there assign to work	2.50	0.63	*
29	Specialist Hospitals have safety meetings with the workers regularly .	2.60	0.67	*
30	Most services and operation are carried out with proper supervision	2.77	0.88	*
	Grand mean	**2.52**	**0.76**	*

***=Agree**

Occupational Hazards

SN	**Physical hazards**	**Mean**	**SD**	**Decision**
31	I have slipped and fallen in course doing my job as a health workers	2.33	0.81	
32	The level of noise in the hospital is contributing to deafness among the staff	**2.74**	**0.85**	*

Table 3: Continuation

33	I often have physical strain or cuts do to the nature of my job	2.34	0.75	
	Psychosocial hazards			
34	Health workers often get depressed due to some circumstances, e.g late payment of salaries, environment etc	2.46	0.90	
35	I often have fatigue and/or hypertension due to my work	2.42	0.83	
36	Health workers age rapidly due to stress prevalent in the job.	2.44	0.87	
	Biological hazards			
37	Health workers are prone to sickness due to working environment	2.36	0.91	
38	I have contacted bacteria that led to cholera in the hospital that I work	2.38	0.75	
39	Some health workers have contracted tuberculosis from the hospital	2.49	0.66	
	Chemical hazards			
40	Some health workers are said to have developed neurological disorders due to the chemical they use in working	2.38	0.85	
41	I have suffered respiratory disorder due to inhalation of some dangerous chemicals	**2.72**	**0.98**	
42	Health workers develop skin disorders due chemicals utilized while working	**2.63**	**0.91**	
	Ergonomic hazards			
43	Health workers suffer waist pain due to age by carrying heavy loads	**2.60**	**0.87**	*
44	I often have backache due to bad sitting position in my office	**2.66**	**0.96**	*
45	Long standing hours lead health workers to have waist pain	**2.64**	**0.86**	*
	Grand mean	**2.51**	**0.85**	*****

***Agree**

lead to decrease in the occupational hazards (y). Table 3 further showed that infrastructure do have a significant correlation with occupational hazard among health workers in specialist hospitals, Rivers State ($F=40.66$, $p<.05$). The null hypothesis one was rejected at .05 level of significance.

Table 5 showed that the relationship between remuneration and occupational hazard among health workers in Specialist Hospitals, Rivers State was high but negative (Beta=-0.227). The Adjusted R-squared of 0.04959 showed roughly the contribution of 5.0% of remuneration to occupational hazards among health workers in Specialist Hospitals, Rivers State. The regression equation, $y=68.58-0.094x$ showed that any increase in the value of remuneration (x) is likely to lead to a decrease in the occupational hazards (y). Table 4 further showed that remuneration do have a significant relationship with occupational hazard among health workers in specialist hospitals, Rivers State ($F=25.47$, $p<.05$). The null hypothesis two was rejected at .05 level of significance.

Table 6 showed that the relationship between personnel and occupational hazard among health workers in Specialist Hospitals, Rivers State was high but negative (Beta=-0.239). The Adjusted R-squared of 0.055 showed roughly the contribution of 5.5% of personnel to occupational hazards among health workers in Specialist Hospitals, Rivers State. The regression equation, $y=70.53-0.127x$ showed that any increase in the value of personnel (x) may lead to a concomitant decrease in the

Table 4: Summary of linear regression analysis on the relationship between infrastructure and occupational hazard among health workers in specialist hospitals, Rivers State

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	54.55715	1.293724	42.17062	0.0000
Infrastructure(x)	0.129580	0.020321	6.376785	0.0000
Beta	0.283000	Mean dependent var		62.67660
R-squared	0.079942	S.D. dependent var		5.171853
Adjusted R-squared	0.077976	Akaike info criterion		6.047402
S.E. of regression	4.966122	Schwarz criterion		6.065073
Sum squared resid	11541.99	Hannan-Quinn criter.		6.054354
Log likelihood	-1419.139	Durbin-Watson stat		1.785459
F-statistic	40.66339			
Prob(F-statistic)	0.000000			

Regression equation: Y=54.56+0.13x

Table 5: Summary of linear regression analysis on the relationship between remuneration and occupational hazard among health workers in specialist hospitals, Rivers State

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	68.57949	1.192555	57.50636	0.0000
Remuneration (x)	-0.094046	0.018635	-5.046686	0.0000
Beta	-0.227000	Mean dependent var		62.67660
R-squared	0.051612	S.D. dependent var		5.171853
Adjusted R-squared	0.049586	Akaike info criterion		6.077728
S.E. of regression	5.041998	Schwarz criterion		6.095399
Sum squared resid	11897.38	Hannan-Quinn criter.		6.084680
Log likelihood	-1426.266	Durbin-Watson stat		1.768115
F-statistic	25.46904			
Prob(F-statistic)	0.000001			

Regression equation: Y=68.58-0.094x

occupational hazards (y). Table 5 further showed that personnel do have a significant relationship with occupational hazard among health workers in specialist hospitals, Rivers State (F=28.40, p<.05). The null hypothesis three was rejected at .05 level of significance.

Table 7 showed that the relationship between working environment and occupational hazard among health workers in Specialist Hospitals, Rivers State was moderately high but negative (Beta=-0.159). The Adjusted R-squared of 0.023 showed roughly the contribution of 2.3% of working environment to occupational hazards among health workers in Specialist Hospitals, Rivers State. The regression equation, y=65.60-0.044x showed that any increase in the value of working environment (x) may lead to a concomitant decrease in the occupational hazards (y). Table 5 further showed that working environment do have a significant relationship with occupational hazard among health workers in specialist hospitals, Rivers State (F=12.10, p<.05).

Table 8 showed that the relationship between attitude and occupational hazard among health workers in Specialist Hospitals, Rivers State was high and positive (Beta=0.285). The Adjusted R-squared of 0.079 showed roughly the contribution of 7.9% of attitude to occupational hazards among health workers in Specialist Hospitals, Rivers State. The regression equation**,** y=56.89+0.097x showed that any increase in the value of

Table 6: Summary of linear regression analysis on the relationship between personnel and occupational hazard among health workers in specialist hospitals, Rivers State

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	70.52778	1.491461	47.28772	0.0000
Personnel (x)	-0.127529	0.023932	-5.328889	0.0000
Beta	-0.239000	Mean dependent var		62.67660
R-squared	0.057206	S.D. dependent var		5.171853
Adjusted R-squared	0.055192	Akaike info criterion		6.071812
S.E. of regression	5.027106	Schwarz criterion		6.089483
Sum squared resid	11827.20	Hannan-Quinn criter.		6.078764
Log likelihood	-1424.876	Durbin-Watson stat		1.791430
F-statistic	28.39706			
Prob(F-statistic)	0.000000			

Regression equation: Y=70.53-0.127x

Table 7: Summary of linear regression analysis on the relationship between working environment and occupational hazard among health workers in specialist hospitals, Rivers State

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	65.60142	0.873167	75.13044	0.0000
Environment (x)	-0.044466	0.012782	-3.478909	0.0006
Beta	-0.159000	Mean dependent var		62.67660
R-squared	0.025209	S.D. dependent var		5.171853
Adjusted R-squared	0.023126	Akaike info criterion		6.105188
S.E. of regression	5.111702	Schwarz criterion		6.122859
Sum squared resid	12228.60	Hannan-Quinn criter.		6.112140
Log likelihood	-1432.719	Durbin-Watson stat		1.727109
F-statistic	12.10281			
Prob(F-statistic)	0.000551			

Regression equation: Y*=65.60-0.044*x

Table 8: Summary of linear regression analysis on the relationship between attitude and occupational hazard among health workers in specialist hospitals, Rivers State

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	56.88708	0.927759	61.31664	0.0000
Attitude (x)	0.096922	0.015051	6.439371	0.0000
Beta	0.285000	Mean dependent var		62.67660
R-squared	0.081390	S.D. dependent var		5.171853
Adjusted R-squared	0.079427	Akaike info criterion		6.045826
S.E. of regression	4.962211	Schwarz criterion		6.063497
Sum squared resid	11523.82	Hannan-Quinn criter.		6.052778
Log likelihood	-1418.769	Durbin-Watson stat		1.772092
F-statistic	41.46551			
Prob(F-statistic)	0.000000			

Regression equation: y*=56.89+0.097*x

Table 9: Summary of linear regression analysis on the relationship between management style and occupational hazard among health workers in specialist hospitals, Rivers State

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	65.65606	1.093721	60.02998	0.0000
Management(x)	-0.045407	0.016273	-2.790369	0.0055

Beta	-0.12800	Mean dependent var	62.67660
R-squared	0.016365	S.D. dependent var	5.171853
Adjusted R-squared	0.014263	Akaike info criterion	6.114220
S.E. of regression	5.134838	Schwarz criterion	6.131891
Sum squared resid	12339.55	Hannan-Quinn criter.	6.121172
Log likelihood	-1434.842	Durbin-Watson stat	1.695032
F-statistic	7.786160		
Prob(F-statistic)	0.005480		

Regression equation: y*=65.65-0.045*x

Table 10: Summary of ANOVA on the influence of working experience on occupational hazard among health workers in specialist hospitals, Rivers State

Experience	N	Mean	SD	Std. Error	95% CI	
					Lower Bound	Upper Bound
1-5 years	31	62.8065	4.20650	.75551	61.2635	64.3494
6-10 years	113	62.4071	5.56879	.52387	61.3691	63.4451
11-15 years	156	62.9679	5.07927	.40667	62.1646	63.7713
16-20 years	90	62.8111	4.61043	.48598	61.8455	63.7767
21 and above	80	62.2875	5.75270	.64317	61.0073	63.5677
Total	470	62.6766	5.17185	.23856	62.2078	63.1454

NOVA

Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	35.713	4	8.928	.332	.857
Within Groups	12509.129	465	26.901		
Total	12544.843	469			

attitude (x) may not lead to a concomitant decrease in the occupational hazards (y). Table 7 further showed that attitude do have a significant relationship with occupational hazard among health workers in specialist hospitals, Rivers State (F=41.47, p<.05).

Table 9 showed that the relationship between management style and occupational hazard among health workers in Specialist Hospitals, Rivers State was moderately high and negative (Beta=-0.1280). The Adjusted R-squared of 0.0142 showed roughly the contribution of 1.4% of management style to occupational hazards among health workers in Specialist Hospitals, Rivers State. The regression equation, *y*=65.65-0.045*x* showed that any increase in the value of management style (x) may lead to a concomitant decrease in the occupational hazards (y). Table 6 further showed that management style do not have a significant relationship with occupational hazard among health workers in specialist hospitals, Rivers State (F=7.78, p<.05).

Table 10 showed that mean rating on occupational hazard among health workers with 11-15 years of working experience was 62.97, SD=5.079 while that of those with 21 and above of working experience was 62.29, SD=5.75. The ANOVA result showed that there is no significant relationship between working experience and occupational hazard among health workers in specialist hospitals, Rivers State(F=.332, p.05).

Table 11 showed that the mean rating of occupational

Table 11: Summary of ANOVA on the influence of age on occupational hazard among health workers in specialist hospitals, Rivers State

Age (years)	N	Mean	SD	Std. Error	95% CI	
					Lower Bound	Upper Bound
30 and below	111	62.5856	5.02985	.47741	61.6395	63.5317
31-36	212	62.7170	5.44904	.37424	61.9792	63.4547
37-42	82	62.5244	4.14617	.45787	61.6134	63.4354
43-48	39	63.7436	5.62755	.90113	61.9193	65.5678
49 - Above	26	61.6154	5.74162	1.12602	59.2963	63.9345

ANOVA

Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	76.846	4	19.211	.717	.581
Within Groups	12467.997	465	26.813		
Total	12544.843	469			

Table 12: Summary of findings

SN	Relationship/influence	Beta value	Nature of relationship	Percentage Contribution	p-value Decision
1	Infrastructure and Occupational Hazard	0.283	high and positive	7.8%	0.000*
2	Remuneration and Occupational Hazard	-0.227	high and negative	5.0%	0.000*
3	Personnel and Occupational Hazard	-0.239	high and negative	5.5%	0.000*
4	Working Environment and Occupational Hazard	-0.159	moderately high and negative	2.3%	0.000*
5	Attitude and Occupational Hazard	0.285	high and positive	7.9%	0.000*
6	Management Style and Occupational Hazard	-0.128	moderately high and negative	1.4%	0.005*
7	Working Experience on Occupational Hazard				.857, ns
8	Age on Occupational Hazard				.581, ns

***=significant**

hazards among health workers in the age bracket of 43-48 years was the highest (M=63.74, SD=5.62). This was followed by that of those in the age bracket of 31-36 years (M=62.71, SD=5.44). The least was obtained by those in the age bracket of 49 years and above (M=61.61, SD=5.74). The ANOVA result showed that there is no significant relationship between age and occupational hazard among health workers in specialist hospitals Port Harcourt, Rivers State (F=0.717, p>.05).

SUMMARY

According to ILO/WHO, (2001) Occupational Health is the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people, and people to their jobs, while occupational health hazards among health care workers" could be understood from physical-chemical-biological-mechanical and psychological dimensions. Hazards therefore, can be classified as endogenous or exogenous. Exogenous hazards are those brought into the hospital from the outside while endogenous sources are those that are transmitted to health care workers from patients (Blood, sera, laboratory specimens.

Impacts of commotion are of two sorts: sound-related impact which comprise of brief or perpetual listening to misfortune and non sound-related impacts which comprise of anxiety, weakness, impedance with correspondence by discourse, diminish effectiveness and

irritation, as activities associated with accidents include; administrating or drawing of injections with syringe, wrong disposal of syringe and needles, recapping of needles and syringes, suturing and related activities, cleaning waste bags containing sharp improperly disposed of, needle left in tray or and trolley, re-sheathing needle and passing instrument to doctor or nurse among others.

REFERENCE

Adeniyi, J.A (2002).Occupational health and safety: concepts, objectives and relevance. Nigerian School Health Journal, 14 (1&2), 192-199

Andersen, T. Clausen, O. S. Mortensen, H. Burr, and A. Holtermann, (2012), A. prospective cohort study on musculoskeletal risk factors for long-term sickness absence among healthcare workers in eldercare. International Archives of Occupational and Environmental Health, vol. 85, no. 6, pp. 615–622.

Baleta, Adele.(2008). Swaziland nurses the wellbeing of its health workers. ***The Lancet*** 371, no. 9628: 1901-1902

Carpenter, Christopher J. (2010)."The role of behavioral science theory in development and implementation of public health interventions". Annual review of public health **31**: 399–418.

Couy;, D.J. & Ellis, R.J. (1994) Politics, Policy and Culture, p. 247 (Oxford, Westview Press). DAKE, K. (1992) Myths of nature: cultural and social construction of risk, Journal of Social Issues, 48 (4), pp. 21-37.

Coyle, D.J. (1994) The theory that would be king in: D.J. COYLB, & R. ELLIS (Eds) Politics Policy and Culture, pp. 219-239

Douglas, M. (1966) Purity and Danger, An Analysis of Conceptions of Pollution and Taboo, (London, Routledge and Kegan Paul).

Douglas, M. (1970) Natural Symbols, Explorations in Cosmology, (London, Penguin).

Douglas, M. (1978) Cultural Bias: Royal Anthropological Institute Occasional Paper No. 35, (London, Royal Anthropological Institute).

Douglas, M. (1982) Essays in the Sociology of Perception, p. 340 (London, Routledge and Kegan Paul).DOUGLAS, M. (1985) Risk Acceptability According to the Social Sciences, p. 115 (New York, Russel Sage Foundation).

Douglas, M. (1990) Risk as a forensic resource, Daedalus, 119 (4), pp. 1-16.

Douglj\s, M. (1992) Risk and Blame: Essays in Cultural Theory, p. 323 (London, Routledge).

Fasunloro, A & Owotade J.F., (2004). Occupational Health Hazards Among Dental Staff of OAUTH. The Journal of Contemporary Dental Practice, volume 5,No 2.

Glanz, Karen; Barbara K. Rimer; K. Viswanath (2008). Health behavior and health education: theory, research, and practice. (4th ed.). San Francisco, CA: Jossey-Bass. pp. 45–51.

Goniewicz, M. A. Włoszczak-Szubzda, M. Niemcewicz, M. Witt, A. Marciniak-Niemcewicz,& M. J. Jarosz, (2012) Injuries caused by sharp instruments among healthcare workers— international and Polish perspectives. Annals of Agricultural and Environmental Medicine, vol. 19, no. 3, pp. 523–527

Gupta, (2011).“Human resources for maternal, newborn and child health: from measurement and planning to performance for improved health outcomes. Human Resources for Health

ILO (1990). .Bangladesh Women: An Improved Technology Project .Report No BGD/89/M03/NOR, Geneva: International Labour Organization, Switzerland.

International Committee of the Red Cross (ICRC). (2010). Health care in danger: Making the case. Geneva, Switzerland: ICRC.

Lipscomb J. and L. Rosenstock (1997), “Healthcare workers: protecting those who protect our health,” Infection Control and Hospital Epidemiology, vol. 18, no. 6, pp. 397–399

Lucas, A.O. & Gilles, H.M. (2003). Short Text Book of Public Health Medicine for the Tropics, Revised 4th edition, London: Power Hodder Arnold

Lugah, V., B. Ganesh, A. Darus, M. Retneswari, M.R. Rosnawati, and D. Sujatha.(2010). Training of occupational safety and health: Knowledge among healthcare professionals in Malaysia. ***Singapore Medical Journal*** 51, no. 7: 586

MajiTijaniJ. ,(2006). Occupational health hazards among workers of seven-up bottling company plc, kaduna plant. Dept. Of Community Medicine Faculty of Medicine

Manyele, H. A. Ngonyani, and E. Eliakimu, (2008) “The status of occupational safety among health service providers in hospitals in Tanzania,” Tanzania Journal of Health Research, vol. 10, no. 3, pp. 159–165.

Nwankwo, O.S. (2013). Occupational Health and Industrial Safety, Owerri: Concave Publishers, Nigeria.

Odd KjellandOlar (2000). An Investigation into the Effects of Noise on the Hearing Capacities of the Workers on two Sawmill in Ile-Ife Osun State, Nigeria. Nigerian School Health Journal ,15 (1&2),248-258.

Olayemi, E.O. (2005). Occupational hazards among clinical staff of Aro-Abeokuta Psychiatric Hospital. National Journal of Mental Health, 12 (1), 34-44.

Ostrander, D. (1982) One- and two-dimensional models of the distribution of beliefs in: M. Douglas (Ed.) Essays in the Sociology of Perception, pp. 14-30

Park, K. (2007). Prevention and Social Medicine, 19th

edition.India:M/S Banarsidas Bhanot.

Reda, Ayalu A., Shiferaw Fisseha, Bezatu Mengistie, and Jean-Michel Vandeweerd (2010). Standard precautions: Occupational exposure and behavior of health care workers in Ethiopia. ***PLoS One*** 5, no. 12. .

Rosenstock, Irwin (1974)."Historical Origins of the Health Belief Model". Health Education Behavior **2** (4): 328–335.)

Takala, J. (2000). Safe Work-The Global Program on Safety, Health and the Environment, Asian Pacific Newsletter on Occupational Health and Safety, Vol. 7: pg.4-8.

Thirion A, Fernández Maciás E, Hurley J, Vermeylen G., (2007). European Foundation for the Improvement of Living and Working Conditions.Fourth Euro- pean Working Conditions Survey ISBN 92-897-0974-x.

Thompson, M. (1997) Security and Solidarity: An anti-reductionist framework for thinking about the relationship between us and the rest of nature (Bergen, LOS-senteret).

Van Dyk, Alta C.,(2007). Occupational stress experienced by caregivers working in the HIV/AIDS field in South Africa. *African Journal of AIDS Research* **6, no. 1**

WHO, The World Health (2006) Report Working Together For Health, World Health Organization, HSE, Moving And Handling In Health And Social Care, Health And Safety Executive.

WHO. World Health Organization, (2010). Classifying health workers. Geneva

WHO/ ILO (1995).Global Strategy on Occupational Health for all-the way to Health at Work to Achieve Millennium Development Goals. Document No. WHO/ILO/97, Geneva: World Health Organization.

Wilburn and G. Eijkemans, (2004), “Preventing needle stick injuries among healthcare workers: a WHO-ICN collaboration,” International Journal of Occupational and Environmental Health, vol. 10, no. 4, pp. 451–456

World Health Organization (WHO). 2012. WHO’s response, and role as the health cluster lead, in meeting the growing demands of health in humanitarian emergencies. Geneva, Switzerland: World Health Organization.

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ROLE OF COGNITIVE EDUCATION IN INFLUENCING ADOLESCENT BEHAVIOR

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On the journey from childhood to adulthood, it is clear that majority of the changes occurring in the lives of individuals stem from understanding the changes and conceptualizing the issues which they are encountering. Different times in an individual's life present different challenges. Steinberg (2007) indicates that all human development experts and theorists agree that the most difficult of these developmental stages is adolescence. There are expected competency demands which will in turn provide an ideal platform not just for self efficacy but also successful functioning. Cognitive education is based on the basic principles on expanding the thinking processes of the individual so that they develop the right skills and competencies to maneuver particular stages in life.

Keywords: Cognitive education, adolescence, adaptation, self efficacy and academic facilities.

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INTRODUCTION

This study employed interview schedules on a selected number of high school students. Selection was based on institutions which in their own capacity have employed one form of cognitive education. The idea was to determine if indeed cognitive education plays any role in adaptation and behavior changes among adolescents. The study concluded that in self Cognitive education expands the ability of the student to think for themselves thereby improving their own decision making capacity while at the same time brining about a greater emphasis on adaptation. Students exposed to cognitive education therefore had lower chances of engaging in delinquent behavior or being cited for unnecessary mischief in school. However, in the large scheme of maters, it seems that cognitive education may not have a serious effect on performance. While some students may perform better after being exposed to cognitive education, it is not clear that cognitive education singly plays a role in the same. The study recommends the use of cognitive education to allow for a smoother transition to adolescence.

In order to adapt to adolescent changes, it is vital for the individual to not only develop formal patterns of operations but also the skills to apply the same. According to Bandura (2006) this is the basis of applying cognitive education. Teachers are not only required to teach the students the subject matter but also ensure that the same students develop a sense of learning. That is, students are able to learn how to learn. In essence this allows them to be more open towards new experiences which in turn ensure easier adaptation to various stimulations around them. Blakemore and Choudhury (2006) cite that the main problem for adolescents is that they often lack the ability to engage formal operations. The brain lacks the maturation with which they can use to adapt to the environmental stimulation. Cognitive education applies various principles in which the leaner acquires the right skills to engage their own mental capacity. They therefore have no need for alternative and

secondary sources of efficacy; they are able to sue the current experiences not as a challenge but rather as a learning experience.

According to Goodenow (2003) cognitive education allows the individual to engage hypothetical– deductive reasoning. For adolescents decisions are often based on emotions, which are found to be the basis of wrong decisions and unacceptable behavior. The prevalence of mental problems such as depression among teenagers can be traced to the inability to properly reason out hypothetical situations. When adolescents are able to reason things scientifically and in a rational manner, they are able to develop their own foundation of self efficacy.

METHODOLOGY

Research design: the study employed a descriptive research design. According to Smith (2007) this research design is ideal in making attempts to understanding the concepts of a matter. Descriptive research design focuses on a singular phenomenon and allows comparison of two or more variable. In this case, the study used the two variables that is, adolescent behavior and cognitive education. The descriptive research design provided an opportunity for an in-depth understanding of the relationship between cognitive education and adolescent adaptation to changes happening in their lives.

Sampling: the study employed a probability random sampling. The first selection was based on the selection of a school which would form the basis of the study. Senior schools have continually encouraged and employed cognitive education. This provides an ideal ground to understand the role which cognitive education has played in shaping adolescent behavior. The second stage, involves selection of students who have been exposed to cognitive education. A random sampling technique was used to select 215 students. Each of these students was exposed to an interview with the researcher, where main measurements such as performance and behavior were taken to determine the effect of cognitive education

Interviews: A research assisted interview schedule is employed, which allowed the students to measure their own adaptation to adolescence. The interview schedule made use of a semantic scale measuring the behavior on a scale of 1-7. The assisted interviews were then recorded, scaled and indexed into an SPSS file. Using SPSS, the researcher than ran some correlation and regression analysis which in turn allowed the researcher to compare the variables determining not just the existence of such relationship but also the strength of the same.

RESULTS AND CONCLUSION

Cognitive education and beliefs in family functioning

Cognitive education is not only focused on bringing forth the subject matter but also ensures an all round students. Teachers focus on ensuring that students are able to learn how to manage their own relationships. Majority of the studies in the past on family functioning have focused on dyadic relationships. On the other hand, the role played by adolescents is quite low on the same. The study showed that students in the centre have gathered the right skills to engage and manage family relationships.

65% of the students indicated that they had not aggressively quarreled with their parents in the past one week and 43% in the past one month. This shows an ability to communicate with their parents openly. 60.5% further showed that they had not been punished in the past five weeks at homes and a further 43% in the past one month. Finally, a majority of the students 78% indicated that they had no trouble communicating that is, passing a message and being understood by fellow members in the household.

Cognitive education and behavior adaptation

Students were asked to compare and measure their own behavior using school records. Majority of the students in the school felt that they were quite independent and less prone to delinquent behavior. 75% indicated that they had not been cited for absenteeism in the past one month. 64% showed that they had not reported to the principal's or guidance office due to behavior adjustment problems. The students had developed their own sense of self efficacy which allowed then to enjoy a high standard of behavior unlike other adolescents.

Cognitive education and authority

Perhaps the biggest concern for parents and schools at large is the constant disobedience of adolescents when it comes to authority. It seems that when teens reach adolescence they automatically develop a desire to repress and work against the relevant authorities in their lives. Whether it is parents or teachers, delinquency often begins as an opposition to authority, (Catalano et al. 2004). 67% of the respondents indicated that they had not had trouble with their teachers in the past one week. The number decreased but still remained relevant when it was measured in the past one month that is, 51%. Further analysis showed that the students that is, 54% felt that the relevant authorities had always listened and communicated effectively to them. On a measurement of

between 1-7, respondents indicated that communication skills mastered in the cognitive education curriculum were effective in ensuring they communicated effectively.

Cognitive education and performance

45% of the respondent's performance had improved significantly in the past one year. Continued exposure to the cognitive education curriculum however showed that 35% of the students had developed relevant science and technology skills. Students have been able to note that they do not exist in isolation but rather can be resolved through proper rational thinking. Pajares and Urdan (2006) indicate that adolescents are able to critically think through and evaluate various information because cognitive education allows the adolescents to organize their own information and themselves, responsibly and effectively. However, it still remains unclear whether cognitive education in itself improves memory, confidence and other aspects that are important in ensuring high performance. It is clear however, that some improvement can be attributed to cognitive education.

CONCLUSION

King and Kitchener (2004) correctly define the role of cognitive teaching and education. These same principles have been upheld by the study. The first principle of cognitive teaching is teaching or education for thinking. This aspect of teaching emphasizes the importance of strategic thinking and decision making. In this case, teenagers are encouraged to think for themselves and independently, negating subjective values and emotions for the benefit of rational thinking. On this basis therefore, teenagers become less aggressive, less emotional and wild instead becoming more rational and thoughtful. Ina manner of speaking, this aspect of cognitive education emphasizes and promotes faster brain maturity. It provides an avenue through which educators can circumvent irrational thought and emotion. The second principle promotes teaching of thinking. This encourages students to emphasize on the process of learning. The experience of adolescence is therefore not viewed as a challenge or something to be feared and overcome, but rather a process of new opportunities for learning. Adolescents are therefore more motivated to learn from the process and gain new experiences. The final stage revolves around relationships, where students are taught to consider the thoughts and thinking process of others. In this level, they are able to understand not just their own peers but also figures in authority and family. What has formerly been considered to be a major issue in adolescence, relationships that characterized by strife and aggressiveness instead become positive relationships which are a good supportive platform for greater growth. In conclusion with cognitive education, adolescents are able to develop a greater understanding of the workings of the world, and the relationships thereof. Quick adaptation becomes a reality rather than an unachievable dream.

REFERENCES

Bandura, A. (2006). Adolescent development from an agentic perspective. Self-efficacy beliefs of adolescents, 5(1-43).

Blakemore, S. J., & Choudhury, S. (2006). Development of the adolescent brain: implications for executive function and social cognition. Journal of child psychology and psychiatry, 47(3-4), 296-312.

Catalano, R. F., Berglund, M. L., Ryan, J. A., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. The annals of the American academy of political and social science, 591(1), 98-124.

Goodenow, C. (2003). The psychological sense of school membership among adolescents: Scale development and educational correlates. Psychology in the Schools, 30(1), 79-90.

King, P. M., & Kitchener, K. S. (2004). Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults. Jossey-Bass Higher and Adult Education Series and Jossey-Bass Social and Behavioral Science Series. Jossey-Bass, 350 Sansome Street, San Francisco, CA 94104-1310.

Smith, J. A. (Ed.). (2007). Qualitative psychology: A practical guide to research methods. Sage.

Steinberg, L. (2007). Risk taking in adolescence new perspectives from brain and behavioral science. Current directions in psychological science, 16(2), 55-59.

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Full Length Research

A Quantitative Approach towards the Multicultural Perception on Arts Education

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For several decades educationalist have proposed that the study of art education has a momentous impact on student academic achievement and student behavior. The purpose of this study was to quantify general education by examining university students in addition; this study briefly explores the impact of music education on human brain and academic achievement at the education levels. Specific research studies provide evidence the importance of arts education at different level of study. Here we present a survey study on education data using a globalized sample of multicultural individuals. Quantitative questionnaire was distributed to each participant and evaluated further .The research design includes the independent variables: gender, nationality, age and major. The dependent variables include: (1) affects language learning skills; (2) help in learning own or other's culture; and (3) objective of music and art education for each of the study populations. Few research questions were used to explore the effect of music and art education on academic achievements, the importance of music in learning own or other's culture, degree and frequency of exposure to music, liking for different musical styles, the importance of music listening relative to other activities; and the reasons why the participants themselves listened to and played music. Conclusions were based upon sophisticated statistical tests including descriptive and inferential statistics, correlations and analysis of variance (ANOVA) statistics.

Keywords: Arts theory, music education, language learning, academic performance, multicultural outlook, culture

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INTRODUCTION

The world population has risen drastically over the preceding years. The gargantuan strain on the planet's resources has impacted the daily life of human beings. Scarcity of resources and opportunities has created unthinkable challenges and tangible and intangible issues for people. A concomitant effect of the population explosion has been the shrinking public space accorded to arts and entertainment, which are a necessary outlet of any society's concerns and aspirations.

Imperatives of survival have marginalized the role of the arts and music in daily life, public discourse and even consciousness. However it is in times like these that the need for arts and music is the greatest for this milieu is most conducive to mental illness, stress and numerous physical ailments that are the by-product of modern-day lifestyle and lower standards of living.

Since time immemorial, artistic, cultural and creative pursuits, whether enjoyed through observation and

understanding, or engaged in through creation, have been perceived to provide a very forceful counterbalance to human circumstances and troubles and can be the preventive and corrective antidote to many mental and physical illnesses. More important is to note that music is one of the defining characteristics of a culture, most expressive of the best in human language and lifestyle, and is an undeniable enhancer of creativity and inspiration. The evidence of the visceral connection of human beings to music is indicated by the USD 37 billion retail value of global recorded music industry, corresponding to sales of 2.5 billion units [1] (Bastian, 2002).

This work sets out to explore the perception that art and music education can enhance learning skills. There is ample literature to support such a premise. Music training causes improvement in several diverse aspects of cognition – one of the obvious means of producing this effect is improving attention. Music education has therefore significant impact on educational achievement. Arnaud Cabanac et al demonstrated students selecting musical courses perform better academically than those declining such courses [2].Likewise, Onur Köksal et al showed the effect of teaching English vocabulary to 5th class students through music on their achievement in vocabulary, attitudes towards English language and retention of new words [3]. Various studies have investigated students learning music and revealed in them an enhancement of IQ level [4], critical thinking [5],working memory[6]and communication skills [6b].Previous studies also illustrate the importance of background music and that playing of different genres influences the cognitive ability of students participating in academic tasks [7]. S. Hallamalso pointed out that students do better at math when it is practiced with background music [8].Like academic performance, music also helps in learning and development of language [9, 10].

METHODOLOGY

This work sets out to explore the perception that art and music education can enhance learning skills. This was accomplished through survey of students of different nationalities to determine their opinion of the role of music and art education in learning skills.

All questionnaires were administered in person. Each participant was explained the nature and purpose of the study. Participants were told that there was no time limit for the completion of the questionnaire and that the completion would likely take 10-20 minutes. The identity of each respondent would remain confidential.

Mixed method approach was implemented for the survey which consisted of both quantitative survey (questionnaire) and qualitative survey (interview**).** This survey was aimed to gather data on: type of music listened by the students; frequency of listening; and their perception of how it affects their behavior.

Questionnaires were completed by 100 students (50 boys, 50 girls) between 18 and 25 years of age (M = 21.38, SD = 2.654) who were taking undergraduate and postgraduate courses in University in different fields like medicine, engineering, trade and humanities.

The questionnaire consisted of 7 items concerning: degree and frequency of exposure to music; liking for different musical styles; the importance of listening music relative to other activities; the reasons why the participants themselves listened to and played music; and their perceptions of effect of music and art education on learning skills, enhancement in IQ level, academic achievements and learning own or other's culture.

PROCEDURE

All questionnaires were administered in person and explained the nature and purpose of the study to all the participants before asking them to volunteer. Participants were told that there was no time limit for the completion of the questionnaire and that the completion would likely take 10-20 minutes. The details shown in Table 1. The information provided by each individual remains confidential.

Mix method approach has been done in order to fulfill the Questionnaire. The survey was consist of quantitative survey (questionnaire) and qualitative survey (interview**).** This survey has created a baseline for the type of music listened by the students, how often they listen to it, and if they feel these habits affect their behavior.

PARTICIPANTS

Questionnaires were completed by 100 students (50 male, 50 female) between 18 and 25 years of age (M = 21.38, SD = 2.654) who were taking undergraduate and postgraduate courses in University with different backgrounds like medical, engineering, trade and humanities. Researchers were sought and included in the study based on their willingness to participate in the data collection.

QUESTIONNAIRE

The questionnaire consisted of 7 items. It was divided into several sections concerning the benefits and improvement in learning skills, enhancement in IQ level, the effect of music and art education on academic achievements, the importance of music in learning own or other's culture, degree and frequency of exposure to

music, liking for different musical styles, the importance of music listening relative to other activities; and the reasons why the participants themselves listened to and played music.

RESULTS AND FINDINGS

The first part of the questionnaire asked participants to state whether they think that music and art education bring serious benefit to students as they progress into more formal learning. Eighty one (81%) responded ‘yes’, nineteen (19%) responded ‘no.’ Participants then reported how music and art education improves the learning/thinking skills. According to seventy two (72%) agreed with this statement, (22%) disagreed with this and (6%) reported adverse effect. Respondents were given five options (Singing, listening, playing instruments, dancing, All or none) to select which field of music influences the learning skills. Majority students showed their interest on playing musical instruments, collectively (94%) agreed with all (Singing, listening, playing and dancing), (6%) disagreed that any field has impact on learning. Respondents were also asked to chose weather music and art education improve IQ level of student, (65%) reported ‘yes’ and (35%) reported ‘no’. Respondents were then asked to state how many hours per day they typically spent listening to music, they have given four options and there was a fluctuation in the answers, according to some students (12%) they do not listen and some students (12%) used to listen daily about 5 or more than (these music lovers looked happy to answer such questionnaire), 21% reported 3-4 hours and majority (55 %) selected an average of 1.45 hours per day (SD = 0.67).Participants were given four options (Kindergarten, high school, University or no need). Majority of students (58%) agreed on art and music should start from kindergarten, 12% agreed on high school level, 12% on university level and according to 4% there is no need of art and music should be taught. Participants were asked whether they attended art and music classes during their educational career and also elaborate effect of training they attended. Forty five (45%) participants reported "No" and gave different reasons e.g. for some students music and art education were not a part of curriculum and for some music and art were optional subjects so they did not choose them. Fifty five (55%) participants reported that they attended these courses. Out of this 29% believed that such courses helped them in improving learning skills. Twenty six (26%) reported the least effect in improvement of learning skills. Firstly, participants were asked the effects arts and music on language learning skills, according to sixty one (61%) students replied that both arts and music enhance the natural abilities of learning own as well as other language. Twenty nine (29%) students think little effect on learning and 10% think that there is no effect. Participants then reported do music and art education help in learning own and other's culture, majority (94%) agreed on this.

Data Analysis Techniques

Descriptive and inferential statistics for the independent variables and the dependent variables, correlation and regression analysis were conducted to reveal significant correlations, analysis of variance (ANOVA) and residual statistics. A number of charts and figures were used to indicate relevant information regarding correlations and significance, if any.

Descriptive Statistics, Correlations, Analysis of Variance (ANOVA), and Regression

There are several inferential statistical procedures that were employed in this study. One employed procedure was a factorial Analysis of Variance (ANOVA), sometimes called an *F* test. Closely related to the *t* test where differences are measured between means of two groups, the ANOVA (*F* test) tests the difference between the means of two or more groups. Therefore, a factorial ANOVA examined data that was classified on multiple independent variables. Furthermore, a factorial ANOVA will show whether there is a significant main effect of the independent variables and whether there are significant interaction effects within and between independent variables in a set of data. Interaction effects occur when the impact of one independent variable depends on the level of the second independent variable (Creswell, 2003). One potential drawback to an ANOVA is the loss of specificity. The *F* test will distinguish that there is a significant difference between groups, not which groups are significantly different from each other. To determine this statistical significance, if any, a post hoc comparison was conducted to reveal where specific differences occur. In other words, which groups are significantly different from each other and which are not. Common post-hoc comparisons include Scheffe and Tukey (Solso, Johnson, & Beal, 1998). Finally, regression statistics were conducted. An extension of an ANOVA, regression is a statistical technique used to predict the value of a dependent variable using one or more independent variables (University of Newcastle upon Tyne, 2002). It is used to account for or predict variance in an interval dependent, based on linear combinations of interval, dichotomous, or dummy independent variables as shown in Table 2. Since there are a number of independent variables and one dependent variable in this study, a multiple regression was employed. Multiple regression

Table 1 presents the results of univariate analysis of variance tests of between-subjects effects for the dependent variable music and art education in learning culture for the entire study population.

Tests of Between-Subjects Effects

Dependent Variable: Music and art education can help in culture learning

Source	Type III Sum of Sq8uares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.374[a]	24	.016	.222	1.000	.066
Intercept	33.458	1	33.458	476.544	.000	.864
nationality	.374	24	.016	.222	1.000	.066
2Error	5.266	75	.070			
Total	118.000	100				
Corrected Total	5.640	99				

a. R Squared = .066 (Adjusted R Squared = -.232)

Table 2 presents mean, standard deviation, and frequency (*N)* for the dependent major of studies and the independent variable spending time listening music each day the entire study population.

Descriptive Statistics

Dependent Variable: major

Q	Mean	Std. Deviation	N
0	2.3333	.98473	12
1-2	2.1957	1.00265	46
3-4	2.3600	1.03602	25
5 or more hours	2.1176	.85749	17
Total	2.2400	.97566	100

Tests of Between-Subjects Effects

Dependent Variable: major

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.809[a]	3	.270	.277	.842	.009
Intercept	397.847	1	397.847	408.789	.000	.810
Question	.809	3	.270	.277	.842	.009
Error	93.431	96	.973			
Total	596.000	100				
Corrected Total	94.240	99				

a. R Squared = .009 (Adjusted R Squared = -.022)

can establish that a set of independent variables explains a proportion of the variance in a dependent variable at a significant level (through a significance test of *R*) and can establish the relative predictive importance of the independent variables by comparing beta weights (Garson, 2006).

Literature survey reveals a variety of positive effects of music on health and affect; these are summarized below:

Research has shown music to be effective in reducing the perception of pain, especially among older patients, those in intensive care and those in chronic or long-term pain [11].A study has demonstrated that people will bike harder when listening to fast music. Another has shown that people run faster and endure more physically when listening to upbeat music [3].Listening to up-beat music during exercise helps boost physical performance and endurance during tougher sessions [12]. This effect is in part explained by the distraction provided by music during tougher work-outs. Music, regardless of type, has shown to help the body recover faster from the physical stress of exercise [13], with slower music having a more profound effect. Classical music has been proven to effectively treat insomnia in college students, making it an alternative to sleep medication. Playing light music with dimmed lights while eating has shown to slow down eating and overall lower the amount consumed [14].Music has been shown to act as a dopamine agonist. Music enjoyment triggers stress reducing chemicals in6 the brain [15].Slow8 music alters brain activity to produce mental states similar to when a person is meditating or is in hypnosis. Inducing brain activity similar to that in such states of altered consciousness with the aid of music can reduce the symptoms of migraine and behavioral problems [16].Classical and slow music can help reduce depressive feelings while rock and aggressive tunes can exacerbate depression. Music has been shown to improve mood, arouse and make self-aware the listeners. Thus, music has a demonstrated effect on affect and mood regulation. Music has been shown to demonstrably enhance cognitive functioning [15] and test performance. Music is as effective in lowering anxiety as a massage. It helps lower anxiety among heart patients prior to surgery. It is effective in reducing post-surgery stress. It produces the perception of stress-reduction and lowering of physical pain among cancer patients [13] while improving their quality of life. Compared to those who did not listen to music or heard only audio books, the memory, attention and mood of stroke patients who regularly listened to music was significantly improved.

REFERENCES

[1] Trappe, HJ. Medizinische Universitätsklinik II (Schwerpunkte Kardiologie und Angiologie), Ruhr-Universität Bochum Deutsche medizinische Wochenschrift, (2009) Music and health — what kind of music is helpful for whom? What music not? 134(51-52):2601-6

[2] Waterhouse, J., Hudson, P. and Edwards, B. Scandinavian Journal of Medicine and Science in Sports, (2010) Effects of music tempo upon submaximal cycling performance 20(4):662-9

[3] Snyder, KL, Snaterse, M., and Donelan, JM. Department of Applied Mathematics, University of Colorado, Boulder. Journal of Applied Physiology (1985), Running perturbations reveal general strategies for step frequency selection. 112(8):1239-47

[4] Karageorghis, CI, Mouzourides, DA, Priest, DL, et al. School of Sport and Education, Brunel University, UK. Journal of Sport and Exercise Psychology, (2009) Psychophysical and ergogenic effects of synchronous music during treadmill walking. 31(1):18-36

[5] De Bourdeaudhuij, I., Crombez, G., Deforche, B., et al. Ghent University, Faculty of Medicine and Health Sciences, Department of Movement and Sport Sciences, Ghent, Belgium. International Journal of Obesity and Related Metabolic Disorders, (2002) Effects of distraction on treadmill running time in severely obese children and adolescents ;26(8):1023-9

[6] Savitha, D., Mallikarjuna, RN, and Rao, C. Department of Physiology, Narayana Medical College, Nellore. Indian Journal of Physiology and Pharmacology, (2010) Effect of different musical tempo on post-exercise recovery in young adults.54(1):32-6

[7] Harmat, L., Takacs, J., and Bodizs, R. Semmelweis University, Institute of Behavioural Sciences, Budapest, Hungary. Journal of Advanced Nursing, (2008) Music improves sleep quality in students. 62(3):327-35

[8] Drazen, DL and Woods, SC. Department of Psychiatry, University of Cincinnati College of Medicine, Ohio. Current Opinion in Clinical Nutrition and Metabolic Care, (2003) Peripheral signals in the control of satiety and hunger.6(6):621-9

[9] Cervellin, G. and Lippi, G. U.O. Pronto Soccorso e Medicina d'Urgenza, Dipartimento di Emergenza-Urgenza, Azienda Ospedaliero-Universitaria di Parma, Italy. European Journal of Internal Medicine, (2011) From music-beat to heart-beat: a journey in the complex interactions between music, brain and heart. 22(4):371-4

[10] Huang, TL and Charyton, C. Transparent Corporation, Columbus, Ohio. Alternative Therapies in Health and Medicine, (2008) A comprehensive review of the psychological effects of brainwave entertainment, 14(5):38-50

[11] Schafer, T., Sedlmeier, P. Stadtler, C., et al.

Department of Psychology, Chemnitz University of Technology, Germany. Frontiers in Psychology, (2013) The psychological functions of music listening. 13;4:511

[12] Van der Zwaag, MD, Dijksterhuis, C., de Waard, D., et al. Phillips Research Laboratories, High Tech Campus, the Netherlands. Ergonomics (2012) The influence of music on mood and performance while driving ;55(1):12-22

[13] Angel, LA, Poizella, DJ, Elvers, GC. University of Dayton, USA. Perceptual and Motor Skills, (2010) Background music and cognitive performance.110:1059-64

[14] Cockerton T., Moore S., et al. Middlesex University, Queensway, Ensfeld, England. Perceptual & Motor Skills Journal. (1997) Cognitive test performance and background music.85(3 Pt 2):1435-8

[15] Sherman, KJ, Ludman, EJ, Cook, AJ, et al. Group Health Research Institute, Seattle, Washington. Depression and Anxiety, (2010) Effectiveness of therapeutic massage for generalized anxiety disorder: a randomized controlled trial,27(5):441-50

[16] Richardson, MM, Babiak-Vazquez, AE, Frenkel, MA. Integrative Medicine Program, the University of Texas. Journal of the Society for Integrative Oncology, (2008) Music therapy in a comprehensive cancer center. 6(2):76-81

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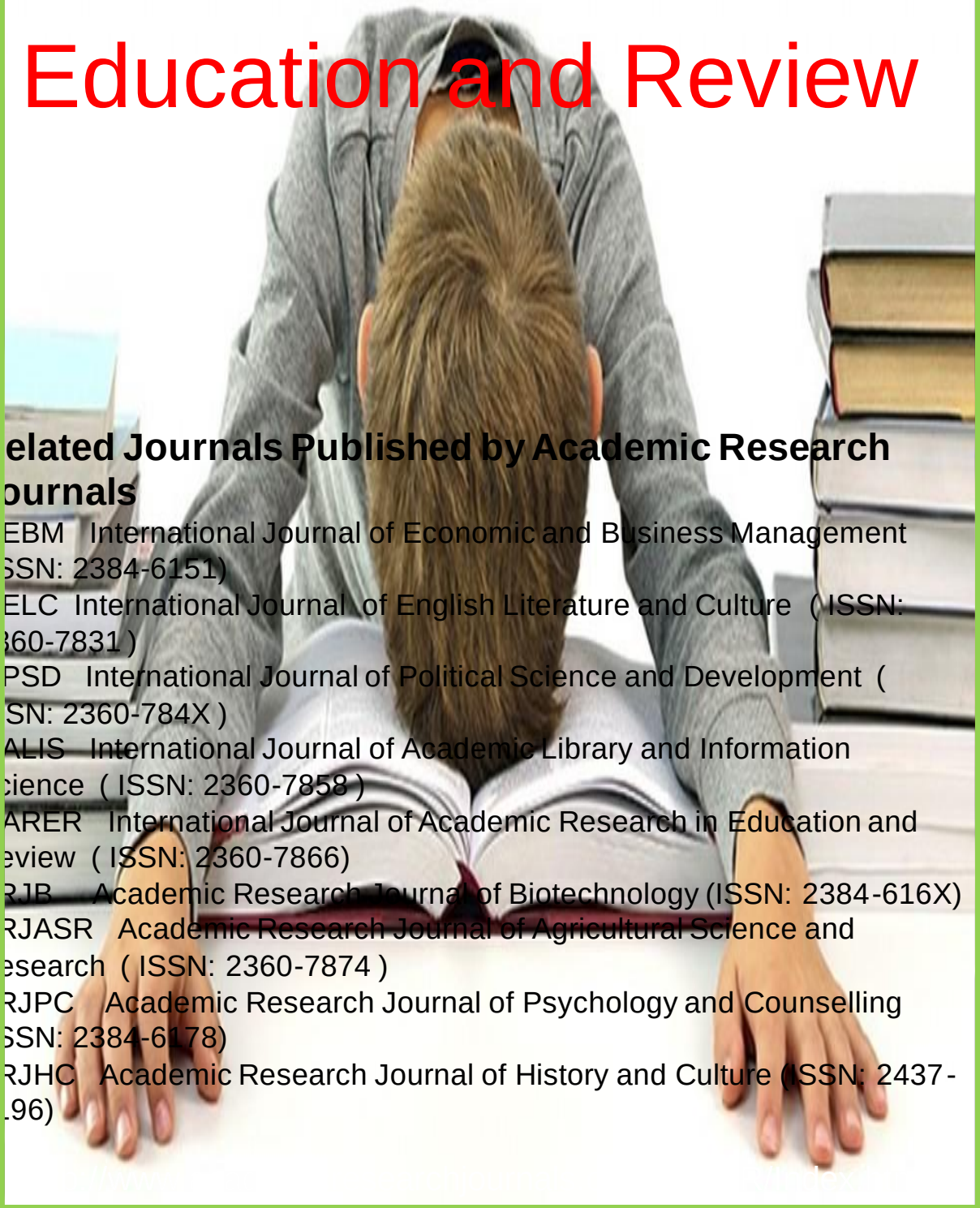

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