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Dengue Virus Infection

Therapy with Thrombolysis

Highlights

Tertiary Institution Graduates

Submassive Pulmonary Embolism

Discovering Thoughts, Inventing Future

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Public and Private Sector Participation and Tourism Development in Cross River State, Nigeria

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Abstract - This study assesses the role of public and private sectors in tourism development in Cross River State, Nigeria. Data for the study were collected through structured questionnaire administered to 175 staff from tourism industry as respondents; and semi-structured interview with 10 management staff. The data were statistically analyzed usingpopulation t-test and percentages. The findings of the study revealed that both the public and private sectors are contributing immensely in the development of tourism in the state; and for tourism to be fully developed, both sectors must collaborate to harness the enormous natural resources of the state.

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Public and Private Sector Participation and Tourism Development in Cross River State, Nigeria

Udumo, B. O [α], Arikpo, A. [σ] & Ekpo-Eloma, E. O, [ρ]

Abstract - This study assesses the role of public and private sectors in tourism development in Cross River State, Nigeria. Data for the study were collected through structured questionnaire administered to 175 staff from tourism industry as respondents; and semi-structured interview with 10 management staff. The data were statistically analyzed using population t-test and percentages. The findings of the study revealed that both the public and private sectors are contributing immensely in the development of tourism in the state; and for tourism to be fully developed, both sectors must collaborate to harness the enormous natural resources of the state.

I. Introduction

Nigeria is a vast country richly endowed with ecological and cultural resources. The country offers a wide variety of tourist attractions such as extended and many rivers, ocean beaches ideal for swimming and other water sports, unique and diverse wildlife, vast tracts of unspoiled nature ranging from tropical forest, magnificent waterfalls and climatic conditions in some parts particularly conducive for holiday. Other attractions include traditional ways of life, preserved in local customs, rich and varied handicrafts and other colourful products depicting nature arts and life style, and the authentic unsophisticated but friendly disposition of many of the Nigerian populace.

Cross River Stale in particular can boast of abundant resources, natural and human whose importance, culturally, politically and economically is underscored by its rich social history in the country. It is on the basis of the above that the study is out to present the tourism potential that abound in state. This includes the following: Obudu Ranch Resort, The Legendary Mary Slessor Abode at Akpap Okoyong, Tinapa Business and Leisure Resort, Agbokim Waterfalls, Kwafalls. Canopy Walkway System, Old Residency Museum among others.

Despite the enormous natural resources that abound in the stale and the pragmatic effort by the public sector (government) to develop tourism, the desire goal has not been realized due to limited resources available to the state. The private sector can contribute to tourism development to complement government efforts. This is in recognition of the fact that the efforts of both sectors can lead to rapid development of tourism industry in the state. Within the past few years the private sector is gradually making her presence felt in towards the realization of the tourism vision of the state. This may be attributed to the stakeholders meeting convened by the previous administration lobbying the private sector to join hands with the government to develop the tourism potentials of the state.

a) Objectives of the Study

The study is set lo achieve the following objectives:

- To assess the role of public and private sectors in the development of tourism in Cross River State
- To determine the level of collaboration between public and private sectors in tourism development and
- To investigate the factors that impede tourism development in Cross River State.

II. Literature Review

Tourism has the potential to enhance lives in a sustainable framework through wealth creation, choice, innovation and competition. For tourism to achieve the aforementioned services, and also to become a key growth area of the state economy, there is need for substantial public and private sectors' collaboration. For this reason, governments of both developed and developing countries have taken the initiatives to develop the tourism industry. These initiatives according to Gamble (1989) involve laws to case the transfer of money in and out of the country, providing lax, incentives for investors, restricting the rights of trade unions speeding up the processes of planning, land purchase and trying to ensure political stability. Similarly the private sector on its part has been providing money used in building hotels, amusement parks, telecommunication, transportation, recreational centers, and supporting infrastructural development. All these are aimed at increasing export and stimulating tourism industry. While stressing the importance of public - private sector partnership in tourist industry. Oladiji (2000) opined that when public (government) sector provides the needed platform or facilities, private sector now uses these facilities to provide services for tourists. This will enhance the economy of the nation through taxes derived

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from both the facilities and services provided. For instance in Thailand, the government spent a huge sum of money to tar the roads, stabilize the political situation and make the environment to be clean. Then the private sectors facilitated in building of hotels, amusement park, provision of provision of telecommunication etc. Falade (2001) also opined that for tourism industry to develop, both public and private sectors must develop a positive attitude towards the industry, otherwise the industry would not flourish.

In a related assertion, Abokom-Aba (1997) stated that the common way for tourism promotion and development decision to be made and funded is through public and private organizations, public and private participation in an organization whose members include government officials and private investors. He further stressed that tourism related public/private organization usually has membership composed of government officials, tourism business owners and managers. These partnerships are being used more and more to fund the promotion and development of tourism. With the partnership the public sector (government) provides infrastructures, make positive and development oriented laws. The private sector on its part provides fund for the infrastructure (often with the help of tax rebate incentives). Together, the two sectors can promote tourism through collaboration.

The growth of tourism in any giving society or state is predicated upon the effective functioning of both public and private sectors. Both sectors must play a complementary role if tourism is to become the key growth area of any nation. Wale (2000) lamented the slow state of tourism development in nations and attributes it to lack of participation and involvement of private sector. He further stressed that the role of private sector should be recognized and encouraged. This will enable key tourism products like adventure and eco-tourism. Cruise and boat tourism, country side, recreational, historical and cultural tourism to be tapped. Aremu (2001) had asserted that if private sector is allow to participate in tourism development, the financial standing and developmental strides of the public sector (government) will be increased and appreciated. Perhaps, it is this that prompted Nwakama (1989) to assert that, the private sector need to be encouraged to invest in the tourism industry not just in the hotel and travel agency business, but also in the establishment of amusement parks, family vacation resorts and outdoor games facilities.

III. Research Methodology

The population of this study comprises of all the staff of the Tourism Industry in Cross River State. The population is derived as shown in Table 1 from the following: eco-tourism (1840), hospitality Industry (4000), Cross River National Park (700). Cultural Tourism (400) and Old Residency Museum (60) (Mofi News. 2001). In all. the entire population of staff in the tourism organization is 7000. Stratified random sampling procedure was adopted in other to effectively represent the different organizations or industries used for this study. From the population of seven thousand (7000), a total of one hundred and seventy five respondents representing 2.5% of the total population were drawn as the sample for the study using purposeful sampling technique. The research instruments used for data collection in the study were the questionnaire and interview. Section A of the questionnaire was designed to elicit data from respondents on the contributions of public and private sectors in the development of tourism industry in Cross River State. Section B contains 15 items on private sector involvement, while section C contains 17 items on public sector involvement. The items here were based on ranking from 1-10. The highest option being 10 and the lowest 1. Section D seeks to obtain data on the collaboration between public and private sectors in tourism development. This section of the questionnaire contains 16 items. And the respondents were expected to indicate who (private or public sector or both) should provide each of the facilities represented in the 16 items. Section H was designed to draw information on how conducive Cross River State environment is for investment in tourism by the private sector while Section F looks at factors militating against tourism development in Cross River State. The semi structured interview was conducted with ten (10) management staff of the of selected organizations used for the study.

IV. Research Results

The results in Table 2 show the means and t-value on the contributions of the private sector in 15 areas of tourism development in the State. The results indicate that the mean ranged from 4.78 for establishing business resort up to 6.98 for developing road map guide for tourists, while the t-value ranged from 1.63 to 4.63. The mean score for 14 out of the 15 areas were found to be statistically significant ($P<.005$) suggesting that the private sector was perceived by the respondents as contributing in these areas of tourism development. The means score for private sector was not statistically significant ($P>0.05$) in the area of business resort indicating that private sector was not contributing significantly in this area towards tourism development in the state. Judging from the mean score and t-value. the private sector contributes more in the development of road maps for tourist (mean = 6.98; t - 4.63); followed by building of hotels to accommodate tourists (mean = 6.94; t = 4.34), providing employment for citizens (mean 6.73; t = 4.21), provision of tourism libraries and information (mean: 6.61; t- 4.09) and providing communication centres (mean - 6.42; t= 3.86),

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providing efficient means of transportation (mean = 6.27; t^3.03), providing airlines (mean = 6.00; t = 3.01), building good roads (mean 5.98; t = 2.98), setting up of tour agencies and tour guides, (mean = 5.90; t ⁝ 2.78). providing scholarship for studies in tourism (mean = 5.85; t = 2.59), providing adequate security (mean - 5.83; t = 2.54), building tourists sites (mean - 5.41; t ~ 2.49) and advertising youth and social activities (mean 5.38; t 22.22) in that order.

Table 1 : Population and sample of the study

S/N		Sector	Population	Sample size
1.	Hospitality industry (hotels) private sector	Private sector	4000	100
2.	Ecto-tourism (Obudu Ranch Resort)	Private sector	1840	46
3.	Cross River National Park	Public sector	700	17
4.	Cultural tourism (Cultural Centre)	Public sector	400	10
5.	Histo-tourism (Old Residency Museum)	Public sector	60	2
	Total		**7000**	**175**

Table 2 : Contributions of the private sector to tourism development

S/No.	Areas of Contributions	Estimated means	t-value	I. level
1.	Building and running of hotels	6.94	4.34	.000*
2.	Development of tourism sites	5.41	2.49	.030*
3.	Transportation	6.27	3,03	.000**
4.	Provision of adequate security	5.83	2.54	.028*
5.	Increased investment in the state	6.40	3.45	.000**
6.	Build good roads	5.98	2.98	.001**
7.	Airlines provided airlines	6.00	3.01	.000**
8.	Employment opportunities	6.73	4.21	.000**
9.	Tour agencies and guides	5.90	2.78	.001**
10.	Scholarship for tourism studies	5.85	2.59	.002*
11.	Business resorts	4.78	1.63	.096ns
12.	Advertisement of youth and social activities	5.38	2.22	.041ns
13.	Provision of libraries/tourism information	6.61	4.09	.000**
14.	Road map guide for tourists	6.98	4.63	.000**
15.	Communication centres	6.42	3.86	.000**

** P<.001 (significant at 0.001)

- P<.005 (significant a .005)
- ns P>.005 (not significant at 0.05)

Table 3 : Contribution of public sector to the development of tourism

S/No.	Areas of Contributions	Means	t-value	P. level
1.	Creating an enabling environment	6.07	3.48	.000**
2.	Provision of tour guards	5.79	3.21	.000**
3.	Providing road maps for tour guards	5.34	2.48	.030*
4.	Friendly policies	6.63	2.49	.000**
5.	Providing adequate security	4.91	1.42	1.104ns
6.	Building of tourism sites	5.20	1.82	089ns
7.	Building of good roads	4.75	1.31	1.43ns
8.	Providing clean and potable water	3.87	0.98	.93ns
9.	Providing electricity	3.90	1.23	1.136ns
10.	Providing a clean environment	5.23	1.921	,62ns

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11.	Providing conducive environment	5.23	3.01	.000**
12.	Carrying out awareness campaign for people to be friendly	5.19	1.49	.91ns
13.	Removal of toll-gate on roads	5.09	1.36	.12ns
14.	Building of hotels	3.87	1.09	.146ns
15.	Reduced taxes, rates/levies	4.71	1.17	.712ns
16.	Cultural and social development	6.31	4.13	.000**
17.	Establishing airlines	4.58	1.15	200ns

**P<.0()1 (significant at 0.01)
* P<05 (significant at 0.05) ns
P>.05 (not significant at 0.05)

Table 3 shows that the means and t-value on areas of contribution to tourism development by the public sector ranged from 3.87 for provision of clean and portable water to 6.63 for formulating environmentally friendly policies to promote tourism; while the t-value ranged from 6.63 to 3.87. The mean for 10 out of 17 areas were statistically significant (P<.05) indicating that the public sector was perceived by respondents in these 10 areas is contributing tourism guard. From the mean scores, the public sector -1 contributes more in formulating environmentally friendly policies to promote tourism (mean = 6.63; t 4.29), than in any other area, followed by promotion of social and cultural development (mean =6.3 1; t = 4.13) and creating enabling of environment (mean 6.07; t=3.48). Others are providing tour guards tourist (mean =5.79; t = 3.21), providing road maps to-guards tourists (mean = 5.34; t =2.48), providing clean environment (mean =5.23; t= 1.921), building of tourism site (mean = 5.20; t = 1.82), carrying out awareness campaigns (mean = 5.19; t 1.49) and removal of toll gates on roads (mean - 5.09; 1.36).

The results that the private sector has contributed in all areas listed but one to the development of tourism equally confirm the findings of Heeley (1986) who reported that more than 10 percent of the 2.2m workers in leisure industry in the U.S. are from the private sector. Equally Boo (1989) state that in Thailand, the private sector has contributed significantly to tourism development through the establishment of holiday homes, airlines operation transportation and general accommodation e.g. camping grounds, bed and break fast, and establishment of motels. Similarly, finding shows that the public sector has made major contributions in tourism development in Cross River State. Of the 17 areas measured, results shows that the public sector has contributed significantly in 10 of the area. The interview results equally confirm this position. One of the interviewees had this to say: "The public sector has played a regulatory role in the development of tourism in the State, For instance, the public sector has licensed a number of tourism outfits in the State."

a) Collaboration between the public and private sector

Findings show the perception of respondents on areas of collaboration between the public and private sectors. The results show that most of the respondents 112 out of 175 are of the opinion that the public sector should get involved in building and expansion of airports while a higher percentage of the respondents 56% routed for the private sector in the operating of airlines. The results agree with Lee (1999) who revealed that the Tunisian government built the Tabarka airport in order to encourage tourism by attracting more tourists. Studies by Tarbush (1985) and Young (2003) also showed that in Seychelleges the building of airport was seen as a save way of promoting tourism hence airports were built by government using public funds. This may be due to the huge financial implications of buildings airports and the security implications.

The results also show that respondents are of the opinion that government need to build good roads as well as work towards the promotion of cultural activities.

Generally, the result shows that most of the respondents are of the opinion that both the public and private sectors need to collaborate for the development of tourism. 10 of the 16 items responded to show that collaboration is needed to develop tourism. A look at the top areas listed for collaboration (good transport) system, training and retraining of hospitality industry, staff, provision of infrastruc-tures/facilities, creating of employment opportunities etc) arc areas of high monetary demand/investment that one sector alone will find it difficult to provide the needed services.

Wale (2000) lamented that the slow pace of tourism development is due to the slow pace of collaboration between the public and private sectors. He emphasized that both sectors must play complimentary roles if tourism is to become one of the key factors of the economic growth of any nation. The survey results in the ten areas of collaboration between the public and private sectors are in conformity with Aremu (2001) who concluded that if the public and the private sectors work together, the financial standing and developmental strides of the public sector will be boosted by that of the private sector.

Interestingly, no area out of the 16 areas respondent was seen as an exclusive preserve of the private sector. This may be due to the small or significant presence of private investors and industries in the state.

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Cross River State has been known over the years as a civil service state. Respondents may have been influenced by the former state of Cross River when they were responding to the questions. That the state had no viable factories and industries could have also influenced the direction of thought of respondents who may be obvious of the importance of the private sector in economic development of any nation.

However, the general result on table 3 shows that there is need for collaborative efforts if Cross River State is to develop her full tourism potentials. Perhaps it is in recognition of the importance of collaboration that Cross River State government is canvassing for a public - private sector driven tourism. This is collaborated by the interview result. One of the respondents interviewed summarized the collaborative effects of the public private sector as: yes, there are so many areas which the public and the private sector have been collaborating to promote tourism in Cross River State. In 2005, Moboho (a ward used by the Efiks to mean a gathering of the coining together of people) was held at the state library in collaboration with other tour operators, travel agent, airport operators, airliners, eatery Journalist and other government officials. According to the tourism official, the aim of this conference was to enable the private sector have a credible knowledge of tourism attraction in Cross River Stale. Another Mboho was held in 2006 at the cultural centre to market tourism potential. Tinappa business resort is another area which the two sectors (public and private sectors) have collaborated to establish.

b) Conducive nature of Cross River State for public-private investment

Table 3 shows the friendly nature of Cross River environment to enhance a public private tourism development. The result shows that Cross River environment is generally friendly. The state is acclaimed as the cleanest in Nigeria. The result of the study equally supports this position. Result equally shows that there is a good security network in the state. This is in line with the general perception of people about the state of security in Cross River State. Many people who have had course to relocate to the state from other neighbouring States of the Niger Delta attest to this. It is a fact that events of kidnapping, assassinations, arm robbery, ethnic fighting, pipelines vandalisalion, religious fighting occurring daily in other Niger Delta States as well as other parts of Nigeria are hardly experienced in Cross River State. Interestingly, the study shows that there is high occurrence of intertribal wars in the state. The result may be due to the increasing cases of intertribal wars in the slate, a phenomenon that was hardly heard of before the current political dispensation in the country. Cross Riverians are not given to violence hence little skirmishes happening in rural communities are perceived as capable of threatening the peaceful nature of the stale. Clean and portable water was also seen as one factor that is threatening the conducive environment of Cross River State with 81.7% saying that there is no clean water. This however opposed to the Cross. River Water Board Bulletin (2005) report that the State through the World Bank assisted water programme enjoys a good supply of water. Tourists need clean and portable water for bathing, drinking and washing. The direction of the result may be due to the fact that the state currently has only succeeded in providing clean and portable water in the state capital and few surrounding local government areas, while other local governments are still groping with the problem of clean and portable water. However, it is hope that the current efforts by the state in conjunction with the World Bank assisted water project.

The public sector was not perceived to play statistically significant roles in the following areas: provision of adequate security (mean = 4.91; t = 1.42), building of good roads (mean 4.75; t = 1.31), reduction in taxes and levies (mean = 4.71; t = 1.17), establishment of airlines (mean = 4.58; t - 1.15); provision of electricity (mean = 3.90; t = 1.23); provision of clean and portable water (mean = 3.87; t - 1 .097), and building of hotels to accommodate tourists (mean 3.87; t=1.09).

V. Discussion of Results

a) Contributions of the public and private sectors to tourism development

The finding of this study show that the private sector has done much in the area of development of road maps to guide tourists, building and running of hotels, generating employment for citizens, provision of tourism workers and information among others. These findings arc in conformity with previous works of Nwakana (1980), Smith (1979) and WTO report (1967). These studies shows that the private sector has over time invested in hotels and tour agency business, and financial support to the public sector for the development of tourism. For instance, Smith (1979) stated that the United Nation's and World Tourism Organization have consistently encouraged the growth of tourism in developing countries through financial assistance and technical advise respectively. Equally, the World Bank is said to be one major source of financial support to developing countries for tourism development (Smith, 1979), while Boo (1989) reported the efforts of World Wildlife Fund (WWF) in supporting tourism development. Richtcr (1985) also stated that in United Stales, 99% of U.S. Travel businesses are established by the private sector will soon solve the problem in all local Majority of the respondents (68%) also said the state lacks a tax friendly environment that will promote tourism. Tourism strives better in slates with friendly tax laws. Young 2003 reported that to promote tourism in Karnataka, the government had to

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offer 4% tax concession for three years on advocating fuel to encourage domestic aviation industries to operate fight to tourist destinations. Also Gamble (1989) traced the development of the tourism industry in Egypt to tax incentives for investors among others.

VI. Conclusion and Recommendations

Both the public and private sectors have contributed immensely in the development of tourism in cross river state. While the private sector contributed in the area of road map development to guide tourists, building and running hotels, generating employment for citizens, the public sector on its part has contributed in all areas such as expansion of airports, establishment of Airlines, building of good roads, provision of good public transport system, training of tour guards, establishment of traveling agencies, promotion of cultural activities, provision of employment opportunities, and provision of infrastructures.

For tourism industry to be fully developed, both sectors must as a necessity collaborate to harness the enormous natural resources embedded in the state. The areas requiring collaboration mostly include transport system, training and re-training of hospitality workers, provision of infrastructures of facilities, creating of employment opportunities. The findings also reveal that, both sectors must play a complementary role if tourism is to become one of the key factors of the economic growth of state and indeed any nation.

i. In the light of the findings of the study, the following recommendations arc made:The public sector should resuscitated most of these tourist sites such as zoo, parks and other entertaining site attraction, to keep the tourism tempo high: and also to be attracting tourists to the state.

ii. The public sector should collaborate with the private sector by undertaking the funding and management of the state tourism industry.

iii. The public sector should provide accessibility to the tourism site by building good roads.

iv. The public sector should partner with the private sector to hold conferences, talk shows on tourism either monthly, quarterly on yearly educate people towards tourism development.

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Economic Recession Psycho-Social Human Characteristics and Sale of Fake Drugs by Tertiary Institution Graduates in South-South Nigeria

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Abstract - This export facto study was carried out to determine the impact of sex, curriculum outcomes, personality trait, gender rolesterotype and common business on the running of fake drug stops by tertiary institution graduates in the event of economic recession. 361 tertiary institution graduates were used for the study multiple regression analysis, and t-test showed their activities to have been influenced by common business practices and personality traits; and the sample members differed as males and females only in the influence of extrovert personality trait which only skewed towards the males. Five questionnaires were used for the study and it findings provided support that informal business practices and education strategies present value employment opportunities that help economic recession victims engage in fake drug sales.

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Economic Recession Psycho-Social Human Characteristics and Sale of Fake Drugs by Tertiary Institution Graduates in South-South Nigeria

Arikpo, A. [α] & Olofu, M. [σ]

Abstract - This export facto study was carried out to determine the impact of sex, curriculum outcomes, personality trait, gender rolesterotype and common business on the running of fake drug stops by tertiary institution graduates in the event of economic recession. 361 tertiary institution graduates were used for the study multiple regression analysis, and t-test showed their activities to have been influenced by common business practices and personality traits; and the sample members differed as males and females only in the influence of extrovert personality trait which only skewed towards the males. Five questionnaires were used for the study and it findings provided support that informal business practices and education strategies present value employment opportunities that help economic recession victims engage in fake drug sales.

I. Introduction

Drug is any substance, which by its chemical nature and physiological process is expected when taken into the body to affect the structure and function of body (Agbator, 2005). The World Health Organization (WHO) sees it as any substance, or product that is used or is intended to be used to modify or explore physiological systems or pathological states of the body for the benefit of the individual (World Health Organization, 1995).

According to the 1993 NAFDAC provisions of Decree No.15 of the Federal Government of Nigeria a drug could take the forms of a vegetable or mineral either prepared, mixed or manufactured and sold or advertised for use in (i) the diagnosis, treatment, integration, and prevention of any diseases, disorder, abnormal physical state and symptoms thereof in a man or animal; (ii) restoration, correction or modification of organic functions in a man or animal; and (iii) disinfection or control of vermin, insects or pest, or contraceptive (pg 203). It functions as therapeutic chemical interventions and communications resulting in inter rated repairs and reinforcements among billions of separated cells.

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However, for any drug to produce beneficial effects it is expected its packaging shows evidences of ethical preparations, availability only with presumptions, free over-the-counter purchase and sales, and its reaching of its target site in adequate concentration. Otherwise such a drugs would become evident as fake, counterfeit, substandard or in secured. (World Health Organization 1990). Its registration is not in accordance with the provisions of the 1993 food, drugs, and related products Decree No. 19 of the Federal Republic of Nigeria as amended by Decree No. 25 of 1999 (FRN,1999b:1114). Its production is not genuine; it is deliberately and fraudulently mislabeled; its ingredients are incorrect, wrong inactive, and insufficient (All African News, 2008).

According to Agbato (2005) these illicit drugs greatly floaded the Nigerian market and business world from the beginning of the 20th century. There was world wide economic recession, continuous devaluation of the naira, and large scale unemployment or retrenchment of already employed labour. These situations created a vacuum whose result was the sprout of a number of drug companies, whose owners were callous, unscrupulous and generally unskilled; and their products fake and substandard imported drugs (WHO 1988b). Victims of the recession suffered an unancipated social role strain. Despite their age, status, positions in their respective families and communities and time and money invested in education, they unexpectantly become socially unproductive. The great expectation of monetary reward and relief from poverty which goes with investment in education were lost. Their worth, sense of belongingness and the financial power of self expression among age mates or peers, were lost to the family or community. So, they came under the social challenge of struggling to find alternative means of earning an income that would help them get back their lost positions and states in their families and the larger society. They engaged in wage-oriented hobbies like drugs peddling; or transfer their learning to cottage drug stores, small scale pharmacies, small scale buying and selling of drugs and other individualized drug marketing projects (Nwachuku, 1994).

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The activities above assumed an alarming range in 1986. Import licenses were issued, permitting most victims of the economic recession to import pharmaceutical products into the country. This, of course, was without regard to the laws governing the importation of such products to the country (Agbato, 2005). The Nigerian drug market became flooded with varieties of the same product. Some of these imitated the label and design of popular generic products; wear deceitful labels like made in Germany, while they are made in Nigeria; wore the logo and trade mark of popular companies; wore fictitious expiring dates which told a lie about their safety and shell life; had no full name and address of manufacturer, were certified and registered with NAFDAC; etc (FRN, 1999b; Agbator, 2005; Erhun, Babalola, and Erhun, 2001).

Nigeria consequently, became the country with the highest incidence of fake and counterfeit drugs. According to FRN (199ob), Adenike (1992) about 40.1% of the drugs sold in Nigeria are either fake, substandard, or adulterated. Between 1989 and 2006 The Nigerian Drug Law Enforcement Agency (NDLEA) arrest over 2,500 persons who engage in the peddle of fake drugs; prosecuted over 15,000 of such persons; made drug seizures amounting to thousands of kilogrammes; and destroyed Indian hemp covering several hectares of land (Ohanyere, 2008).

In 2006, National Agency for Food and Drug Administration and Control (NAFDAC) had sued drug dealers for using romesay syrup powder to produce fake Barbicillin Ampicillin Syrup and Rampicillin to revalidate expired can coca-cola drinks (Ojulawa and Mmuta, 2006).

The engagement of victims of the 20th century economic recession in the sale of fake drugs remained triggard by the following:

(i) Their emotional feelings and reactions to other people, situations, incidents and ideas which constitute their social environment and relations;
(ii) Their likes, dislikes or avoids;
(iii) The extent to which they could happily avoid harmoniously fit into the environment they find themselves;
(iv) The normal, jovial, moody active, inactive, carefree, and restrictive emotional state, mood, and energy of their person;
(v) Their personal behaviour as expressed in terms of social values or conducts that are right or wrong (Anwana, 2001);

Their involvement in the sale of fake drugs to avert the negative effects of the economic recession won a developmental change stimulated by the want of self-realization or the harness of talented potentials. It drew from their ability to successfully overcome the life obstacles by the unhealthy economics situation (Ukpong, 2009). It was the result of psychological and physical attributes, whose presence or absence either mode them succeed or fail in their venture. Such attributes included self confidence, perseverance, adaptability to change, leadership spirit; attitude towards childhood, family and past jobs; physique, planning, organizational ability, empathy, general mental ability, general attitude towards people, human relations and avoidance of hunger and penury (Tawo and Nanna, 2000). To Aggrawal (2007) they must remain evident as good physical appearance, emotional stability, high intellectual ability, high degree of social adjustment, high moral character, cool temperament, good directedness, high adjustability, tremendous common sense, and drive and pragmatic thinking. These ideas are also shared by Ejue (2002). To this end Stalling and Wasden (1992) see their success or failure in the unanticipated job to have emanated from an internal ideas of control evident in their

(i) more commitment to work,
(ii) more work oriented behaviour;
(iii) more concentration and attentiveness;
(iv) more creativity in artistic arrangement and illustration;
(v) less overt anxiety and potential behaviour;
(vi) more capability to master and cope with situations;
(vii) more assumptions of personal responsibility evident in volunteering for extra tasks, support for others, great dependence on external reinforcement, strict obedience to self concept, etc.

All knowledge they used in setting up the drugs stores arouse from information they acquired through the senses. Their minds on the drug stores were of their birth like tabula Rasa, which became filled through experience, the relative influence of maturation, specific acquired training, the period of time and life they find themselves, happiness arising from successful efforts, and teachable moments emanating from the ripeness of the body and requirement of the society that the individual be ready to achieve a certain task (Anwana, 2001).

Another source of their success was their age. They were within and above age 21; the ages the Pharmacists; Council of Nigeria and the Federal Government of Nigeria consider appropriate for the practicing of patient medicine in Nigeria (Egbor, 1984; PC.N, 2003b, 2004). And according to United Nations AIDS (UNAIDS) young men are given genuine information services and support that suits a particular age can always adopt safe behaviours and make responsible decisions about wealth. They equally as well often help to educate and motivate others to make similar decisions. There is the application of the sense of rationalism or rationalization, empathy, spirit of patriotism, and nationalism.

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Their establishment of fake drugs stores involved their choosing a drugs filed, deciding how they want its professional practice to develop, and selecting the educational opportunities that will advance its professional practice. Most of them attended career courses and clubs or associations which helped them learn about patient medicine trade. Others took to interactive career guidance, which provided them information drugs choice, skills, preparation, abilities, interests, values and goals (Brown, 2001, Fitzpatrick, 2001), work habits, verbal and numerical skills (FRN,2004).

II. Theoritical Framework

One of the theories behind their action Piaget's theory of Cognitive development. By this theory individuals growth always goes with acquisition of concepts and the development of the ability to reason. Their involvement in drugs peddling was thus a function of the interaction between their maturity level and the environment. Maturity was a significant factor in their peddle of drugs. At each stage their peddle of drugs entailed both intellectual and impulsive learning. These gave off intellectual development, mastery of developmental tasks at each stage of drugs peddling and successful achievement of latter drugs peddling tasks. Therefore, their success in drugs peddling passed through five stages of cognitive development not minding their adult ages. These stages were the sensori-motor, the pre-conceptual, the pre-operational intuitive, the concrete operational and the formal operational stage. The reason being that they have no previous professional or academic training in the drug trade; and so were just like new born babies in the trade.

Another theory behind their action is Frend's psychoanalytic personality development theory. By this theory their peddle of drugs is stimulated by constant interaction of three forces. These forces are the id, the ego, and the superego. The id is the unconscious and biological aspect of their personality. This advanced self, gratification and pleasure as bases for which they, despite their lack of academic and professional training, must engage in drug peddling. The ego is the partially conscious and psychological aspect of their personality they are justified by the peddle of drugs with the principle of reality. The superego is the moral aspect of their personality which attributed the drug peddle to the sense of what is right or wrong vis-à-vis incumbent social developments.

Their venture into estranged trade drew from their primitive personality associated solely with libidinal urges or psychic energy. Their venture had or was of conscience, moral value, but immediate gratification of job security or creation through impulses. As the trade grew, the urges that produced it came into direct conflict with reality. The trade produced gratification only where the urges that produced it were of acceptable circumstances. The trade became entrenched in a conflict between the unconscious mind and the environment, which exposed its development to the principles of reality, or conscious and psychological aspects of personality. Such personality rationalized it and allowed gratification in it only in acceptable manner of the self and pleasure. Implicitly, the drug illicit trade thrived on a social environment which provided it practitioners with moral behaviours of learning and acquiring experiences for the trade.

The third theory is the trait theory. By this theory which was developed by Allport, Caltel, and Eysenick (1891-1967) their engagement in drug peddling was better measured relative to their personality trait. Their engagement in the peddle of drugs was traceable either to dynamic organisms, or psychological systems, which warranted their unique adjustment to its practice.

There was also the floppock composite vocational choice theory. Their peddle into the drug trade was by this theory a reflection of their personality traits and relative strength of their needs, which were psychological, social and economic needs. They went into it because they believe it would best meet their most important needs; and perceived it to be more attractive than others.

Another was that by Ginzberg, the vocational choice development theory. The theory associates their choice of drug peddle, in the heat of economic recession and unemployment with a developmental process, comprising different phases of life, which are irreversible. Their choice therefore found explanation in developmental, economic, emotional and environmental factors.

The final of these theories was the Donald Super's Vocational development theory. The theory associated their involvement in the drug peddle with differential psychology. It identified their choice of the drug trade with series of life stages, each of which corresponded with phases in the development of their self concept. Their degree of career development from the time of early fantasy or childhood to the time of retirement from work tended to inform their choice of drug peddle as an alternative to economic recession, unemployment and retirement. The pleasure and job satisfaction they derived from the illicit trade on drugs were attributable to their personality trait, abilities and values, which fit squarely with the prescribed functions and activities of drug peddling.

III. Statement of the Problem

The present study's major concern, therefore, was to predict the difference (if any) in the extent to which curriculum outcomes, sex, personality trait, gender roleste-reotype and common business practices

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may have influenced the running of fake drug stores by male and female tertiary institution graduates in South-South, Nigeria. The choice of male and female tertiary institution graduates was based on the empirical evidence that these cohorts have since between 1980 and 1985 taken to such none nationally patriotic trade. This has been owing to poverty emanating from poor access to employment opportunities and assistance for those living at their margin and those victimized by labour market deregulation and retrenchment (National Millennium Report, 2004). Secondly, their ages fall within super's establishment stage (25-45 years) during which conscious and practical attempts are made of them to find an appropriate, or suitable work field and earn a permanent palce in it (Makinde and Alao, 1987). They also fall within piaget's formal operations stage, during which there is gradual increase in the ability to master formal operations through logical deductions and consideration of hypotheses and consequences (Durojaiye, 1981).

Based on the stated problem, the investigator sought to provide answers to three research question.

IV. Research Questions

1. What is the composite effect of curriculum outcomes, sex, personality trait, gender rolestereotype and common business practices on the running of fake drug stores by male and female tertiary institution graduates?
2. What is the relative effect of each of the independent variables on the running of fake drug stores by male and female tertiary institutions graduates?
3. Which of the independent variables would predict the running of fake drug stores by male and female tertiary institution graduate?

a) Research Design

The ex post facto research design was adopted for the study. The variables under consideration have already occurred in the sample and situation under study.

b) Population and Selection of Sample

The population of the study consisted of all male and female University, Colleges of Education, Colleges of Agriculture, Polytechnic or Colleges of Technology and Theological Seminary graduates in South-South Nigeria. Out of these, three hundred and sixty-one (361) male and female graduates were purposively selected for the study. Their denominations were 213 (59%) males and 148 (41%) females. Of these, 79 (220%) were male university graduates and 58 (16.195) female university graduates; 19(5.26%) male college of Agriculture graduates and 14 (3.9%) female college of Agriculture graduates; 44(12.20%) male Polytechnic graduates and 16(44%) female polytechnic graduates; 36 (9.97%) male college of education graduates; 50 (14%) female college of education graduates; and 35(10%) male Theoretical seminary graduates and 10 (2.8%) female Theological Seminary graduates.

c) Research Instruments

Five research instruments were used in the study. These were a self Employment Characteristics Rating Questionnaire (SECRO); a common sole proprietor Business Practice Questionnaire (CPBPQ); Personality Job Creation Trait Inventory (PJCTI); Gender Rolestereotype Job Creation Inventory (COJBI). These instruments were 20-itemed and were adaptations of those developed by the National Directorate of Employment (NDE) (1989); Hitch in (1996); Akinboye (2001) and Alexander (1996). Each of these instruments was revalidated using chrombach Alpha. They yielded reliability coefficients of 0.83; 0.81; 0.91; 0.92; and 0.93 respectively. These instruments have been used in previous studies by the investigator.

V. Procedure

The investigator visited the Cross River State Ministry of Commerce and Industry; the National Directorate of employment (NDE); homes, Full Gospel Businessmen Fellowship; Graduate Fellowship; Secondary Schools, and Business Premises in south-south Nigeria. He discussed the purpose of the study with their leaders. Purpose sampling here after employed to select individuals to constitute the sample.

Members of the sample were then adequately briefed on the response role they were to play as individuals of the administration of the instruments on them. Thereafter, the investigator and his twelve (12) research assistants administered the five instruments all at once on the sample. No assistance was given to participants except with reading and understanding instructions to the instruments. This exercise lasted for three months. The investigator employed the services of an assistant to score the responses and the data arising from them were computer analyzed. The maximum mark to be obtained on each item was 5 and the least 1.

VI. Results

A multiple stepwise regression analysis procedures was used to test the research questions. Findings from the descriptive statistics and the correlation coefficients are discussed first, followed by reports of the results of answer to the questions.

a) Means and Standard Deviations

The means and standard deviations for the males and females on the one dependent variable and the nine independent variables are shown in Table 1. The means for the males and the females on all the variables are the result of summing scores on all the

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items comprising the SECRQ, CPBPQ, PJCTI, GRJCI AND COJBI factors. To place the sample on Likert's continuum, the summed values were divided by the number of items in all the five instruments. The results are 77.77 for the 213 males, and 73.88 for the 148 females. Since the conceptual mean of the continuum is 2.35 for the males and 3.38 for the females, all the subscales leaned towards the participative end of the continuum. The males and females are described by responses to the variables under study as being highly enterprising with their predicted values approaching the participative.

Table 1 : Means and Standard Deviation for Males and Females on all of the Variables

Sex	N	Means	Standard Deviation
Selected			
Male	213	77.77	4.81
Female	148	73.88	7.05
Unselected			
Male	148	76.40	6.03
Female	213	75.57	5.79

Response were reversed.

This result is, of course, when members of the sample are selected; when not selected the means are 76.40 for males and 75.57 for females.

The responses to variables described the sample as having positive enterprising characteristics.

b) Answering of Research Questions

Multiple stepwise regression analysis was used to answer the research questions. In contrast to the preceding residuals statistics, multiple regression is a way to analyse the collective and relative contributions of the independent variables to the variation in the dependent variable vis-à-vis the sexes under consideration.

i. *Research Question 1*

The results of statistical provision of answers to the first question are shown in table 2. The composite effect of the nine independent variables on the dependent variable vis-à-vis the sexes under consideration was revealed, for the male block the effect was significant,

F (213) =5.273; adj R^2= 0.154 with all nine variables obtaining significance, R=0.435 where the males were selected and 0.511 where the males were not selected. The variables also account for 18.9% of variance in the dependent variable, R^2= 0.189. The remaining 81.1% remain attributable to residuals error and other factors not investigated in this study. For the female block the effect was significant F (147)=7.661; adj R^2=0.290 with all the nine variables remaining significant, R=0.577 where the females were selected, but 0.349 where not selected. Equally the variable together account for 33.3% of variance in the dependent variable, R^2= 0.333. 66.7% of the remaining variance goes to the residuals, error and other factors not considered in the study. However, both sexes together, the effect was not significant F (360) =0.913; Adj R^2 = -0.002 with the nine variables showing a none significant effect on the constant, R=0.0151. The variables contribute to 02.3% of variance in the dependent variable, R^2=0.023. The remaining variance goes to residuals, error and other factors not investigated in this study. Although not significant, their effect was sex-wise greater among the females than the males. The first two regression equations.

Table 2 : Composite effect of the Independent Variables on the dependent variable by sex (N=361)

Category sex	R	R^2	S.E	F-Ration	Sig F
First Analysis Suppressors included					
Selected Male	0.435	0.189	10.16	5.273	0.000
N/selected	0.511				
Second Analysis with male sex substituted with female					
Selected female	0.577	0.333	0.290	10.30	7.661	0.000
N/selected	0.349				
Third Analysis with both sexes combined					
Both Sexes (not selected)	0.151	0.023	-0.002	1.16	0.913.
0.86					
p<0.05					

Associated with this table contained a classical statistical problem; the male and female independent variables respectively acted as suppressors. Their correlation coefficient were opposite in value to one

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another; and this was not the expectation of the researcher. To avoid this complication, the analysis was completed again without sexually separating members of the sample; but the variable yielded no significant effect.

ii. *Research Question 2*

To determine which of the variable in either of the sexes functions as suppressor, the nine variables were thrice regrouped under the two sexes. Under the males, significantly positive beta weights retrogressively became those of common business practices (β=0.234; P<0.05), extrovert personality trait (β=0.148; P<0.05) introvert personality trait (β=0.174;P<0.05), and affective curriculum outcomes (β= -0.155; P<0.05). Those of psychomotor curriculum outcomes (β= 0.112; p>0.05)), feminine gender rolestereotype (β=-0.032;P>0.05), cognitive curriculum outcome (β=-0.052;P<0.05), field experience curriculum outcomes (β=-0.032;P>0.05) and masculine gender rolestereotype (β=-0.028; P>0.05), rather become negative (see the Rank column in table 3).

Under the females, however, significantly positive beta weights or contributions became associated retrogressively only with common business practices (β= 0.355; p<0.05), introvert personality trait (β=0.253; P<0.05), and cognitive curriculum outcome (β= 0.168, P<0.05). Those for affective curriculum outcomes (β= 0.123; p>0.05), field experience curriculum outcomes (β= 0.0123; p>0.05), psychomotor curriculum outcomes (β=0.124; P>0.05), feminine gender rolestereotype (β=-0.037; P>0.05), masculine gender rolestereotype (β=0.021; P>0.05), and extrovert personality trait (β=0.013; P>0.05). They were native. (See the Rank column in table 3).

For either of the sexes, however, two variables displayed on significantly positive beta weights or contributions. These were common business practices and introvert personality traits; through with a 0.121, and 0.079 reproductive difference in favour of the females. Those of extrovert personality trait, and affective curriculum outcomes were exclusively positive under the males and so were those of cognitive curriculum outcomes for the females outside common business practices and introvert personality traits, the findings are under the sexes, opposite to one another, even when the questions were revised sex-wise. The sexes put together, common business practices, extrovert personality traits and introvert personality traits lost the positive beta weights gained whole exclusively under the males for the non significance of other independent variables in their group. So, did common business practices and introvert personality trait also lose those gained under the females for non significance of their counterparts. (See the Rank column in table 3).

Table 3 : Relative contribution of the Independent variables to the Dependent variables by sex (N0.361)

Independent variables beta	Rank	df	P
First Analysis			
1. masculine gender rolestereotype	0.028 9th	12,03	>0.05
2. Feminine gender rolestereotype	0.069 6th	1,202	>0.05
3. Common business practices	0.234 1st	1,202	<0.05
4. Extrovert personality trait	0.148 2nd	1,200	<0.05
5. Introvert personality trait	0.178 3rd	1,199	<0.05
6. Field experience curriculum Outcomes	-0.032 8th	1,198	>0.05
7. Psychomotor curriculum outcomes	0.112 5th	1,197	>0.05
8. Affective curriculum Outcomes	-0.155 4th	1,196	>0.05
9. Cognitive curriculum outcomes	-0.052 7th	1,195	>0.05
Second Analysis with male sex substituted with female			
1. Masculine gender Role stereotype	-0.037 8th	1,137	>0.05

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2.	Feminine business Practice	0.037	7th	1,137	>0.05
3.	Common business Practice	0.0355	1st	1,136	<0.05
4.	Extrovert personality Trait	0.013	9th	1,135	>0.05
5.	Introvert personality Trait	0.0253	2nd	1,134	<0.05
6.	Field experience Curriculum outcomes	-0.015	5th	1,133	>0.05
7.	psycho-motor curriculum Outcomes	0.124	6th	1,132	>0.05
8.	Affective curriculum Outcomes	0.123	4th	1,131	>0.05
9.	Cognitive curriculum Outcomes	0.168	3rd	1,130	<0.05
Third analysis with					
1.	Masculine gender role stereotype	0.007	9th	1, 138	70.08
2.	Feminine gender role stereotype	0.091	1st	1,137	70.05

This findings answer question 2.

iii. *Research question 3*

From table 4, only common business practices, extrovert personality trait, and introvert personality trait could under the males predict the dependent variable or tertiary institution graduates running of fake drug shops. They alone have partial correlation coefficients (β) whose t-values are statistically significant (β = 0.200; t=2.780; p<0.05; β=0.128; t=2.220; p<0.05; β=0.149; t=2.140; p<0.05 respectively). Under the females two only common business practices (β =0.285; t=4.693; P<0.05) and introvert personality trait (B= 0.164; t=2.621; P<0.05); and not extrovert personality trait (β =9.791; t=0.160; P>0.05) out cognitive curriculum outcomes (9.465; t=1.933; P<0.05) which was not listed among the males (β =3.061, t=0.652; P>0.05), could. They alone had partial correlation coefficients, whose t-values are statistically significant. So, in either sex, these independent variables whose partial correlation coefficients (β) have significant t-values are to be entered into the prediction equation. All other independent variables have partial correlation coefficients (β), whose t-value's probability exceed 0.05. They can not be entered into the prediction equation.

Table 4 : Relative Production of the Dependent Variables by the Independent

Independent Variable	B	SEB	df	t	P
First Analysis involving only males					
1. Common Business practice	0.200	0.072	1,203	2.780	<0.05
2. Extrovert personality trait	0.128	0.057	1,202	2.220	<0.05
3. Introvert personality trait	0.149	0.070	1,201	2.140	<0.05
4. Affective curriculum Outcomes	-8.797	0.053	1,200	-1.657	>0.05

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5. psycho-motor curriculum outcomes	5.851	0.052	1,200	-1.657	>0.05
6. Feminine gender Rolestereotype	4.113	0.048	1,198	1.115	>0.05
7. Cognitive curriculum outcomes	3.061	0.067	1,197	0.652	>0.05
8. Field experience curriculum outcomes	-1.764	0.052	1,196	-0.338	>0.05
9. Masculine gender reloestereotype	-2.075	0.067	1,195	-0.309	>0.05
Constant	47.328	5.38	5.028	1,194	9.244
<0.05					
Second analysis substituting males with females					
1. Common Business Practice	0.285	0.061	1,138	4.639	p<0.05
2. Introvert personality trait	0.164	0.062	1,137	2.621	p<0.05
3. Cognitive curriculum outcomes	0.149	0.070	1,201	2.140	p<0.05
4. Affective curriculum outcomes	7.585	0.066	1,135	-1.148	p>0.05
5. Field experience curriculum outcomes outcomes	-9.054	0.062	1,134	-0.147	p>0.05
6. psycho-motor curriculum outcomes	-6.879	0.063	1,133	-0.086	p>0.05
7. Feminine Gender rolesterorotype	-2.890	0.079	1,132	0.308	p>0.05
8. Masculine Gender reloestereotype	1. 632	0.079	1,131	-0.207	p>0.05
9. Extrovert personality traits	9.791	0.061	1,130	-0.160	p>0.05
Constant	38.751	5.087	9,129	7.618	p<0.05

The prediction equations for either sex are as follows:

1) Males = $Y^1 = 47.382 + 0.200x + 0.128x + 0.149x$

   Where Y^1= fake drug shops ran by unemployed males tertiary institution graduates and x = common business practice, extrovert personality trait and introvert personality trait which underlie their run.

2) Females: $Y^1 = 38.751 + 0.285x + 0.164x$

   Where Y^1= fake drug shops ran by unemployed female tertiary institution graduates and x = common business practices and introvert personality trait harnessed to their run.

VII. Discussion

Several statistically significant relationships were found, through their magnitude varied according to sex. The overall or composite equation statistics for the step-wise regression procedure, provided a substantial support for the three questions per sex and sex mix.

Its results revealed that, for the males, the nine independent variables taken together do produce a relationship a little close enough to stimulate the dependent variable, or fake drug shops ran by tertiary institution graduates. Their absolute value is a little large enough to give that impression. It is 0.44. But the observed F-ration remains significant at 0.05 level, indicating that, under the males, a combination of the nine independent variables to predict the dependent variables, or tertiary institution graduates' running of fake drug shops could not have occurred by chance. It rather has arisen as a result of 18.9% linear combination of the nine independent variables; the magnitude of their combination with the dependent variable being 0.154.

For the females, however, its results show that the nine independent variables together produce a

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relationship moderately close enough to promote the dependent variable, or fake drug shops ran by tertiary institution graduates. The observed F-ratio is significant at 0.05, indicating that the combination of the nine independent variables to predict the dependent variable, or tertiary institution graduates' running of fake drug shops is not by chance. It is the result of 33.3% linear combination of the nine independent variable, 0.290.

However, through the explained variables are a little relatively high, individual variable statistics provide mixed support for the posited relationships. Among the males, only three of the nine independent variables (common business practices, extrovert personality trait, and introvert personality trait) entered the prediction equation. For the females only two did, common business practices and introvert personality trait. Across the sexes and their mix, only five of possible 27 beta weights were significant at or beyond 0.05 alpha level.

Answers to the research questions included positive predictions of the dependent variable or tertiary institution graduates' running of fake drug shops by common business practices, extrovert personality trait and introvert personality trait among males, and common business practices and introvert personality trait common among females. They, therefore, became on either sex the only independent variables qualified to be entered into the regression equation. Independent variables other than these could not because they did not predict the dependent variable, or tertiary institution graduates' running of fake drug shops. The latter disposition applied to all independent variable when considered on none sex grounds. None of them could predict the dependent variable, or tertiary institution graduates' running of fake drug shops.

Each of the nine independent variables contribute to the dependent variable or tertiary institution graduates, running of fake drug shops, but the extent differed. Among the males common business practices revealed first followed by extrovert personality trait, then introvert personality trait, affective curriculum outcomes, psychomotor curriculum outcomes, feminine gender roleostereotype, cognitive curriculum outcomes, field experience curriculum outcomes masculine gender rolestereotype, respectively. Among the females, as among the males, common business practices ranked first, but followed by introvert personality trait, than extrovert personality trait, then cognitive curriculum outcomes, affective curriculum outcomes, field experience curriculum outcomes, psycho-motor curriculum outcomes, feminine gender rolestereotytpe, masculine gender relesoterotype, and extrovert personality trait, retrogressively. But when the independent variables were considered irrespective of sex Feminine gender ranked first, followed by introvert personality trait, then common business practices, extrovert personality trait, cognitive curriculum outcomes, affective curriculum outcomes, field experience curriculum outcomes, psychomotor curriculum outcomes, and masculine gender relestereotype.

The non-sex biased findings reinforce those of Hoy, Newland and Blazovsky (1977) as in Barello and Sage (1979), centralization reduces morale, but increased formalization improves attitudes towards jobs. Shertzer's and Stone's position that personality trait helps individuals to use self-understanding and the knowledge of their abilities to develop their potentialities was confirmed; so was Parson's proposition that self-knowledge, knowledge of the world of work, and true reasoning assist in career planning and placement. (Makinde and Alao 1987). The accepted premise that males and females differ on their subjects, functions, styles, needs and use of power and relationship strategies was found to be true (Pelt, 2000:8-9).

A synthesis of this discussion provides the following generalization: tertiary institution graduates who run fake drug shops in the absence of formal sector employment are characterized by (i) common business practices, (ii) less centralized decision making structures; (iii) more formalized general rules and (iv) trait-factor activities.

This statement supports the extrovert theoretical views that subjective factors like optimistic expectations, personal liberty, private property, individual initiative, and private control of enterprise exhibit more complex and variegated effects than the government or public agencies on tertiary institutions graduates' running of fake drugs shops.

VIII. Recommendations

From the findings and discussion above, it is pertinent that tertiary institution curriculae will need to offer critical competency areas their graduates will need in order to function in the private sector. These areas will need to be those that will make for: ICT competencies; business skills, attitudes and knowledge; marketing competencies; social and personal business attributes; mindset change; consultation with relevant centers or agencies; inter-disciplinary collaboration; professional development programmes; and career tracks.

IX. Conclusion

The purpose of this study was to build on existing literature dealing with the running of fake drugs shops and psycho-social human characteristic to their run; while avoiding several deficiencies limiting its generalizability. This objective was achieved in many ways. Literature was reviewed with a multi-dimensional synthesis. Research questions were asked, a relatively large sample of tertiary institution graduates was selected, reliable research instruments were used, and sophisticated data analysis procedures were employed. Yet as the investigation went on a number of

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shortcomings became apparent. The theoretical frameworks used here may not have been complex enough to explain the wide variation of psycho-social behaviour in none formal running of fake drug shops. Alternative theoretical framework, especially those on sex and gender may be considered to select and display the subtle relationship between and among human psycho-social characteristics and the running of fake drugs by tertiary institution graduates.

A second shortcoming is the narrowness of the research methodologies used in curriculum and the teaching of tertiary institution undergraduates. The study used ex post facto techniques and perceptual measures. However, the dependent variable may need to be considered vis-à-vis ethnographic, experimental, and longitudinal procedures.

This far, the study has made contribution to the understanding of the running of fake drug shops as a human psycho-social characteristic drive.

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Strategy to Diagnose Dengue Virus Infection in Local Settings: An Experience

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Abstract - Introduction : Perfect and well-organized diagnosis of dengue is significant for medical concern, observation maintenance, studies about pathogenesis, and research for vaccines. Diagnosis is also significant for infection verification (DF or DHF/DSS), to distinguish dengue from other infections, and further flavivirus diseases, and for the designated treatment strategy organization as well as estimation of persons having severe infection (1).

Materials & Methods : There were 85 serum samples and 03 whole blood samples collected from suspected dengue patients, from different hospitals and laboratories of Karachi city in year 2012. Initially three whole blood samples were subjected to Immuno fluorescent staining technique then RNA was extracted from dengue serum samples and subjected to one step multiplex Real Time RT PCR and 2% agarose gel respectively.

Results : All the 85 serum samples gave positive results on one step multiplex Real Time RT PCR and also gave bands on 2% agarose for dengue serotype 2, 3 and 4.

Keywords : DF (dengue fever), DHF (dengue hemorrhagic fever), DSS (dengue shock syndrome), RT PCR (reverse transcriptase polymerase chain reaction).

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Strategy to Diagnose Dengue Virus Infection in Local Settings: An Experience

Shazia Tabassum Hakim [α], Shaista Malik [σ], Qudsia Hussain [ρ], Sayyada Kanwal Zehra Zaidi [ω] & Sayyada Ghufrana Nadeem [¥]

Abstract - Introduction : Perfect and well-organized diagnosis of dengue is significant for medical concern, observation maintenance, studies about pathogenesis, and research for vaccines. Diagnosis is also significant for infection verification (DF or DHF/DSS), to distinguish dengue from other infections, and further flavivirus diseases, and for the designated treatment strategy organization as well as estimation of persons having severe infection (1).

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Results : All the 85 serum samples gave positive results on one step multiplex Real Time RT PCR and also gave bands on 2% agarose for dengue serotype 2, 3 and 4. Immuno fluoresent staining was also positive for dengue serotype (2).

Conclusion : The results of this study shows that both immunofluorescence technique as well as one step multiplex Real Time RT PCR are efficient and rapid techniques for diagnosis and for research purpose equally, if it would be fully establish in local setting. Along with these finding we also found that the major dengue virus infections in year 2012 were of dengue serotype 4, while dengue serotype 2 and dengue serotype 3 were present in very small percentage i.e., 10% and 6% respectively.

Keywords : DF (dengue fever), DHF (dengue hemorrhagic fever), DSS (dengue shock syndrome), RT PCR (reverse transcriptase polymerase chain reaction).

I. Introduction

Dengue fever is caused by a virus which is transferred through a vector called mosquito; and four serological types of dengue virus circulating in our environment are: DEN-1, DEN-2, DEN-3, and DEN-4 that causes dengue infection. Dengue fever is very valuable Arbovirus disease which causes disease in humans, and World Health Organization (WHO) indicates that its extent of effect has risen with part of thirty over the preceding fifty years (2). DENV is transferred towards humans through *Stegomyia aegypti* (previously *Aedes aegypti)* mosquitoes and broad variety of signs appear, as of mild disease (dengue fever) to a severe hemorrhagic type (dengue hemorrhagic fever) (2, 3). Genus of Dengue viruses is Flavivirus and family is Flaviviridae. Dengue viruses have single stranded RNA and are enveloped. The size of RNA genome is almost 11 kilo base and the RNA encodes a three structural proteins: E (envelope protein), M (membrane protein), and C (core protein), the large poly protein precursor are produced by RNA genome, which is co translationaly processed by virus encoded proteases and host cell to produce individual dengue virus protein. The NS1, NS2a, NS2b, NS3, NS4a, NS4b, and NS5 are nonstructural (NS) proteins (2). DHF-DSS is a most important reason of hospitalization and death amongst children in Southeast Asia, where more than one million cases were recorded between 1987 and 1989. Over 30,000 deaths due to DHF-DSS in children have been reported worldwide since 1950 (4). DF is an infection of youth, in Southeast Asia. There is, though, confirmation to recommend that the occurrence of DHF among adults is rising (5). Dengue virus infection epidemics are observed periodically all over the tropics and dengue is endemic in Southeast Asia and India. In recent times it has become endemic in Pakistan, with cases observed in main hospitals all year around. A current study that was under taken in a tertiary care hospital in Pakistan illustrated that cases of DHF and DSS are on the increase (6). In Pakistan, the initial known report was in 1985 (7), whereby dengue virus serotype 2 was isolated for encephalitis in a sero epidemiological study. The initial main outbreak was testimony in Karachi in 1994-95 (8).

Hence, to stop and manage the development of dengue virus infection the World Health Organization has recommended the augmentation of active and accurate laboratory-based surveillance for early reporting of dengue virus infections to the public health authorities (9). In DHF and DSS epidemics, quick analysis of the serological type(s) within person having dengue disease is significant (10). Analysis is essential hence proper preclusion, treatment, as well as management measures are able to be started as well as exact epidemiologic facts be able to be retained (4). Dengue virus infection diagnosis on the basis of medical conditions is not consistent; therefore analysis must be definite through learning of laboratory (11).

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Infection with Dengue virus is now identified by means of numerous biological experiments: on mosquito cells virus isolation, viral RNA discovery via reverse transcription-PCR (RT-PCR) or experiments of serology, for example immunoglobulin M (IgM) capture enzyme-linked immunosorbent assay (MAC-ELISA). Commercial MAC-ELISA kits are accessible, but they cannot be utilized for early diagnosis, because IgM cannot be visible until 5 to 10 days later than the start of infection in cases of primary dengue virus infection and until 4 to 5 days later than the start of secondary infections (2). Immunofluorescence experiments used in the precedent, novel techniques relating enzyme conjugates for example peroxidase as well as phosphatase with combination to either monoclonal or polyclonal antibodies are very much progressed (12). Recognition of the DEN virus is commonly skillful by means of immunofluorescence methods along serological type-specific monoclonal anti-DEN antibodies on infected cells or vector head crushes (13).

II. Materials And Methods

There were 85 serum samples and 3 whole blood samples collected from suspected dengue patients, from different hospitals and laboratories of Karachi city during the months of August to November 2012. Initially 03 whole blood samples were subjected to Immunofluorescent staining technique, this technique was used for the identification and detection of dengue viral antigen. For performing immunofluorescent staining technique we followed the protocol of Sirichan Chunhakan et al; 2009 (14).

RNA was isolated from 85 serum samples from suspected dengue patient by using the extraction kit (viral gene spinTM) from intron. The isolated RNA were amplified by one step multiplex Real Time RT PCR. The purified RNA was amplified by using puRe Taq Ready-To-Go PCR Beads, (Amershan Bio sciences UK.). CFX 96TM Real Time C1000 Touch thermal cycler (Bio rad) was used for one step multiplex Real Tme RT PCR. 0. 6ul was taken from each primer and added in puRe Taq Ready-To-Go PCR Beads tube, then in this added 1ul M-MLV Reverse Transcriptase (Promega) and 5ul of M-MLV 5X Reaction buffer (Promega) and 7ul of isolated RNA. The final volume of 25ul was made by diluting this master mix reaction tube with diluents. Thermal cycle for dengue Real Time RT PCR was set. Initially the RNA was reverse transcribed to cDNA by providing it temperature of 55°C for 10 minutes, this was followed by one cycle of denaturation at 95°C for 8 min, next amplification was proceeded with 50 cycles at 95°C for 10 sec and one cycle at 60°C for 1 min (15). After that amplicons were subjected to 2% agarose gel in order to observe the size of amplified cDNA (complementary DNA) with the help of marker DNA (fermentas 1kb Ready-To-Use).

III. Results

A total of 85 serum samples and 03 whole blood samples were collected from suspected dengue patients, from different hospitals and laboratories of Karachi city during the months of August to November 2012. Out of 85 serum samples 17 serum samples were collected from Dow University of Health Sciences , 20 serum samples from Essa Laboratory and Diagnostic Centers , 28 serum samples from Imam Clinic and 20 serum samples and 03 whole blood samples were also collected from Memon Medical Institute as shown in Table 1. RNA was extracted from those suspected serum samples using viral gene spinTM. Isolated RNA was subjected to one step multiplex Real Time RT PCR and then processed on 2% agarose gel for electrophoresis. After performing all steps, it was observed that all 85 serum samples from different dengue suspected patients gave positive one step multiplex Real Time RT PCR results and also produced relative bands on agarose gel. The bands on 2% agarose gel electrophoresis of dengue cDNA gave almost equal sizes or lengths which were in the range of 1,500 bps to 2,000 bps as shown in Figure 3 and some were in the range of 2,500 bps to 3,000 bps as shown in Figure 4.

The molecular weight of isolated bands were in the ranges of 1,500 bps to 2,000 bps and 2,500bps to 3,000 bps as also mentioned by other scientist, and confirms the presence of dengue virus. It is important to note that majority of isolates were of dengue type 4 in about 84%, where as dengue serotype 2 was in 10% and dengue serotype 3 was in 6% only as shown in Table 2.

A total of 03 whole blood samples of dengue positive (IgG and IgM antibodies) serum patients were collected and preceded for immunofluorescence staining. This was the very first time we were trying to use immunofluorescence staining for the detection of this virus in Karachi, Pakistan we have to tried to establish each and every requirement and all the necessary equipments. That is why, we tried first with only three (100%) positive specimens and the results were promising. Our findings suggests that the DENV2 - infected monocytes were present in the slides as observed by using immunofluorescence microscopy and shown as green fluorescent objects in staining.

IV. Discussion

Molecular techniques are very useful and beneficial in a sense of detecting, identification and typing of dengue virus and also for epidemiological studies. Initially in this study, we tried to establish immunofluorescent technique in local setting but due to

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lack of/ unavailability of required reagents in enough quantity, we had tried this technique only on three positive whole blood samples and get progressive results for DEN-2, it means that immunofluorescent technique is a easiest and rapid technique if we may establish it in local settings. Moreover we also detected, identified and evaluated that, which dengue serotype is commonly circulating in our community or environment. For that purpose along with immunofluorescence technique we also did one step multiplex Real time RT PCR. After performing one step multiplex real time RT PCR, we obtained positive results, means all 85 dengue serum samples from suspected dengue patients had RNA of almost equal length on 2% agarose that is in the range of 1,500 bps to 2,000 bps and very small in numbers the bands were in the range of 2,500 bps to 3,000 bps, it also suggests that majority of the 85 serum samples from suspected dengue patients shared almost the same serotypes in Karachi city during climate year of 2012.

Anna P. Durbin et al,. 2001(16) indicated that the size of dengue virus serotype 4 complete genome is 2,000 bps in another study Ching-Juh Lai et al, 1991 (17) showed that the full genome size of dengue virus serotype is 1343 bps, so it means that complete genome size of dengue virus serotype 4 is in the range of 1,000 bps to 2,000 bps while the size of dengue virus serotype 2 according to Stephanie Polo et al, 1997(18) is 3.2kb which is approximately 3,200 bps, Lewis Markoff et al, 2002(19), said that the size of dengue serotype 1 is 1-1.5 kb which is approximately 1000-1500 bps. According to Joseph E. Blaney JR, et al, 2004(20) dengue serotype 3 has approximately 2,000 bps, but according to our results, as we observed on 2% agarose gel about 84% bands were in the range of 1,500 bps to 2,000 bps, and dengue serotype 2 was present in about 10% and dengue serotype 3 was present in about 6%, it means that the dengue serotype 4 which is about 84% was the major cause of dengue outbreaks in Karachi in 2012. According to Erum Khan et al, 2010(21) in the year of 2004 dengue serotype 2 was dominant and in year of 2005 the dengue virus serotype 3 was dominating. According to Muhammad Idrees et al., 2012 (22) in the year 2006-2009 both the dengue serotype 2 and dengue serotype 3 were co circulating and in 2011 dengue serotype 2 was dominating. Our results showed that in 2012 the dengue serotype 4 was more dominating than dengue serotype 2 and dengue serotype 3 and may be responsible of causing severe dengue infections i.e. dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS) during that particular year. Situation for the coming years especially for the patients who had previously infected with the dengue infection and in case of secondary infection with any of the four serotype of dengue the resultant will be more severe that's why it is recommended to take serious measures to eliminate the dengue infection from our region and make maximum effort to prevent the people from dengue infection.

Secondly, one step multiplex Real Time RT PCR detected dengue viral RNA and reverse transcribed dengue viral RNA into complementary DNA (cDNA), this evidence showed that all 85 serum samples from suspected dengue patients had been collected in early phase, this is because RNA remains in human blood during only first five to six days of infection, after that immunoglobulin M (IgM) produces in blood and start to eliminate the dengue virus, then after immunoglobulin G (IgG) produces and further precede the elimination of dengue virus and that IgG stays in blood for long interval of time and give immunity to person with same serotype. That is why all 85 serum samples were diagnosed as early phase serum samples and had shared almost the same serotype of dengue virus in Karachi city in 2012. These results help in epidemiological study and aid in collection of surveillance data of dengue viral infection from Karachi city.

Karachi city is geographically distributed into 5 districts which are; central, south, east, west and malir district. As we collected the sample from different hospitals and laboratories of Karachi city which are located in different districts of Karachi city, the higher number of dengue samples were received from central district that were about 48 in number and lowest number of dengue samples were received from district east that were about 40 in numbers. So in this study we also find that in 2012 dengue serotype 4 was distributed in district central and east of Karachi city while other dengue serotype that are dengue serotype 2 and dengue serotype 3 were also circulating almost in all district but in very small numbers. The percentage of dengue serotype 4 from different district of Karachi was about 84% while dengue serotype 2 and 3 were only 10% and 6% respectively. As the other studies mentioned that in previous years dengue serotype 2 and dengue serotype 3 were dominating so, it may be possible that in coming next year all four serotype will co circulating in all districts of Karachi city and may result in more sever dengue infection. So, this is the time to get rid of dengue infection and save the people from sever dengue infection. We hope that this all data about dengue infection and distribution of dengue infection according to districts of Karachi city will be helpful in elimination of dengue infection.

Most important thing in any viral infection is the management i.e. identification and characterization of causative agent. If we identify and characterize viral disease then, it becomes easy to design strategy for elimination of that disease from the community or environment. This was the reason why we evaluated the immunofluorescent technique and one step multiplex real time RT PCR because they gave us very rapid results. One step multiplex real time RT PCR is very rapid, specific and sensitive method, as well as

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immunofluorescent technique is also a very rapid and easy, these techniques are useful at both research and diagnostic level and by using these techniques we may easily typify the dengue virus and will help to determine further measures to eliminate dengue virus and related infections from our community or environment.

The results of this study shows that both immunofluorescence technique as well as one step multiplex Real Time RT PCR are efficient and rapid techniques for diagnosis and for research purpose and the immunofluorescent technique is very beneficial if it would be fully established in local setting and along these finding we also found by using immunofluorescent technique, one step multiplex Real Time RT PCR and agarose gel electrophoresis that the major dengue virus infections in year 2012 was of dengue serotype 4, while dengue serotype 2 and dengue serotype 3 were present in very small percentage. Geographically dominating dengue serotype 4 was present in most of the district of Karachi city while, dengue serotype 2 and dengue serotype 3 were also present in almost all district of Karachi city. It is an alarming situation for coming years because, it may be possible that in next monsoon season all dengue serotype1-4 will be circulating and an outbreak will happen which may cause co-infections with more severity so before the monsoon season we should take some measures for elimination of dengue infection and prevents the lives from severe dengue infection. This result may be of help in eliminating dengue infection in the next coming years.

Our study provides very beneficial information on immunofluorescent technique for the diagnosis and research purpose, and its use for diagnosis of dengue and on the basis of this study we suggests that this technique will be very helpful in future in many ways. And by using both techniques the data we found will be helpful for the further epidemiological study and our study will also be helpful in elimination of dengue virus infection from our community by making different strategies and management for dengue infection and it may also be helpful in future work on vaccine preparation.

V. Acknowledgement

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Table 1 : Collection and area wise distribution of serum samples

Hospital/Laboratories Name	District of Karachi	No. of Samples (100%)
Dow University of Health Sciences (DUHS)	District East	17 serum samples (19%)
Imam Clinic	District Central	28 serum samples (31.81%)
Memon Medical Institute (MMI)	District East	20 serum samples and 03 whole blood samples (26.13%)
Essa Laboratory And Diagnostic Centre	District Central	20 serum samples (22.72%)

Table 2 : Distribution and Percentage of Dengue Serotypes

Total no. of Samples	Negative Serum Samples	Positive Serum Samples			
		Den type 1	Den type 2	Den type 3	Den type 4
85 serum samples (100%)	0 (0%)	0 (0%)	9 (10%)	5 (6%)	71 (84%)

Table 3 : Immunofluorescence Positive Blood Specimens

Total no of samples	Negative serum samples	Positive serum samples			
		DEN-1	DEN-2	DEN-3	DEN-4
03 Blood Samples (100%)	0 (0%)	0 (0%)	03 (100%)	0 (0%)	0 (0%)

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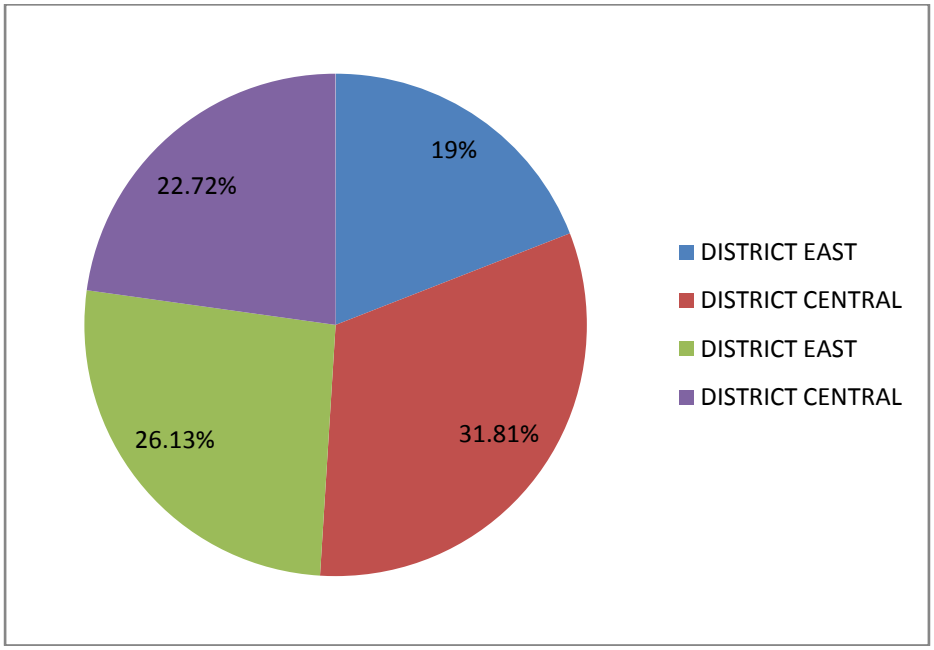

Figure 1 : Pie Chart Showing District Wise Collection of Serum and Blood Samples

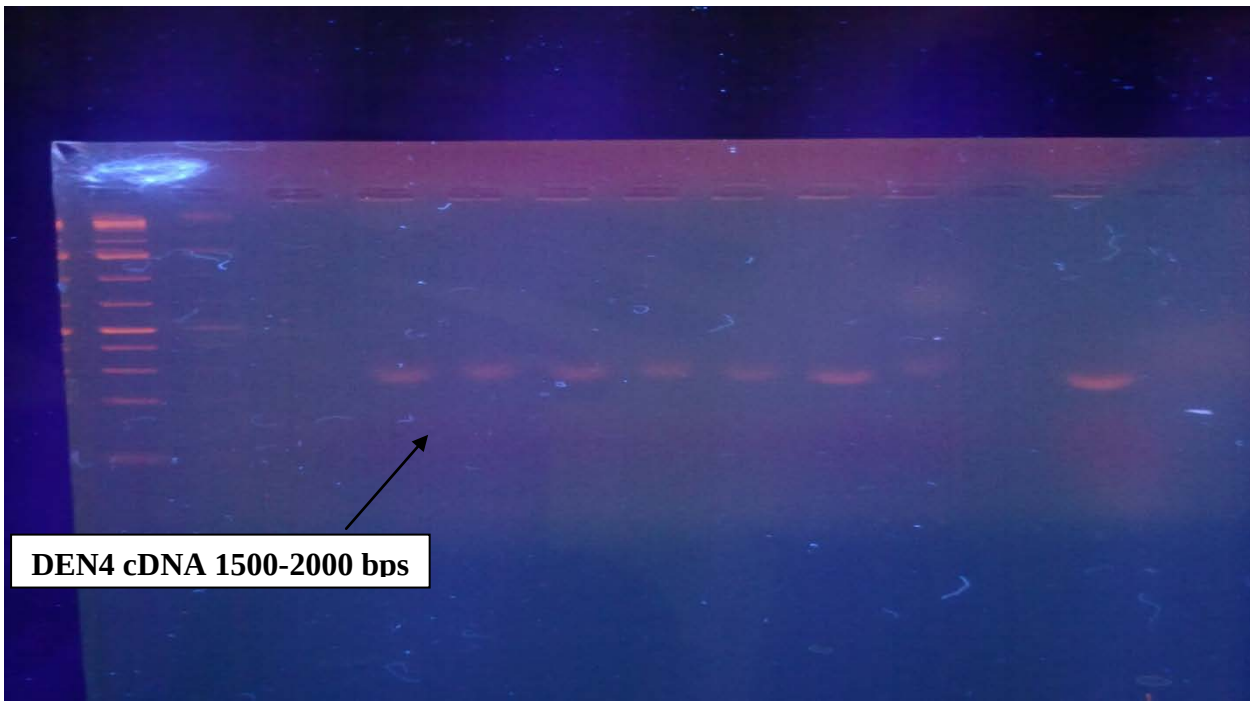

Figure 2 : Agarose gel electrophoresis shows DEN 4 cDNA bands 1,500-2,000 bps

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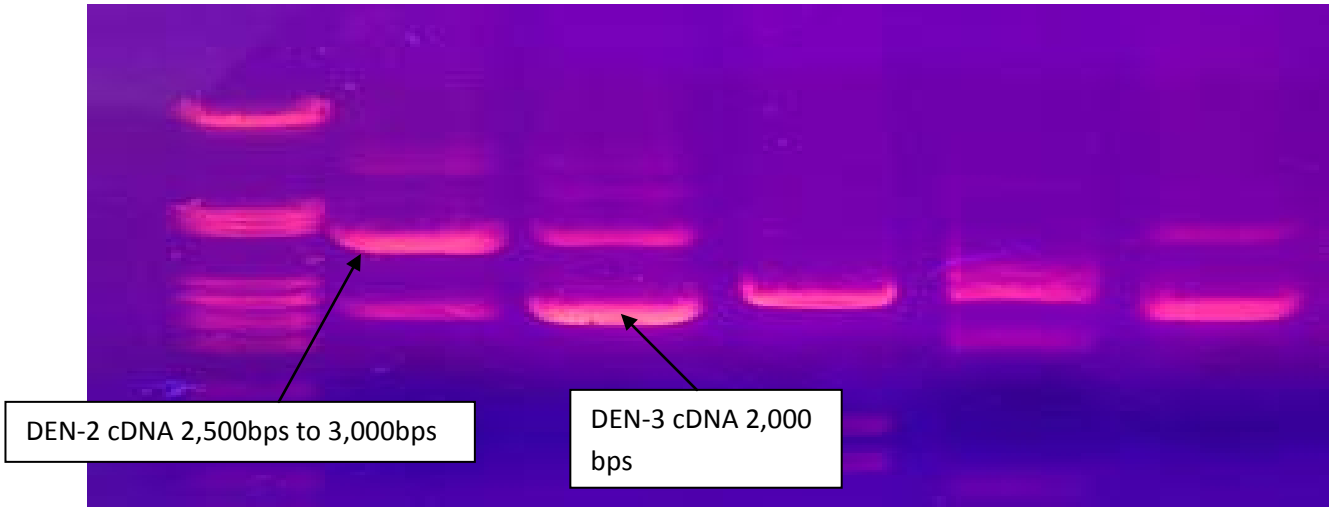

Figure 3 : Agarose gel electrophoresis showing DEN 2 and DEN 3 cDNA bands 2,500 bps-3,000 bps and 2,000 bps respectively

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Submassive Pulmonary Embolism – A 'Watch-And-Wait' Strategy with Anticoagulation Alone or Advanced Therapy with Thrombolysis

By Daniel Bogdanov Petrov, Emilian Iliev Gagov & Maria Hristova Milanova
Pirogov Emergency Hospital, Bulgaria

Abstract - A 65-year old man, presented with syncope and dyspnea. On examination he was tachypneic, hypoxemic, normotensive, with elevated D-dimer and cardiac troponin. ECG showed sinus tachycardia $S_1Q_3T_3$ syndrome and echocardiography revealed right ventricular dysfunction. Urgent computed tomograph angiograms showed bilateral pulmonary embolism. After treatment with intravenous tpA the patient's status improved and echocardiogram showed decreasing of the right ventricular systolic pressure.

The most widely accepted indication for thrombolic therapy is proven pulmonary embolism with cardiogenic shock; therapy is also frequently considered when a patient presents with systemic hypotension without shock. The use of thrombolysis in submassive embolism – that is pulmonary embolism causing right ventricular (RV) dilatation and hypokinesis with systemic hypotension – is debated.[1]

Keywords : *submassive pulmonary embolism, throm-bolysis, advanced therapy.*

GJSFR-E Classification : *FOR Code: 110305*



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Submassive Pulmonary Embolism – A 'Watch-And-Wait' Strategy with Anticoagulation Alone or Advanced Therapy with Thrombolysis

Daniel Bogdanov Petrov [α], Emilian Iliev Gagov [σ] & Maria Hristova Milanova [ρ]

Abstract - A 65-year old man, presented with syncope and dyspnea. On examination he was tachypneic, hypoxemic, normotensive, with elevated D-dimer and cardiac troponin. ECG showed sinus tachycardia $S_1Q_3T_3$ syndrome and echocardiography revealed right ventricular dysfunction. Urgent computed tomograph angiograms showed bilateral pulmonary embolism. After treatment with intravenous tpA the patient's status improved and echocardiogram showed decreasing of the right ventricular systolic pressure.

The most widely accepted indication for thrombolic therapy is proven pulmonary embolism with cardiogenic shock; therapy is also frequently considered when a patient presents with systemic hypotension without shock. The use of thrombolysis in submassive embolism – that is pulmonary embolism causing right ventricular (RV) dilatation and hypokinesis with systemic hypotension – is debated.[1]

The purpose of the study was to demonstrate a case of submassive pulmonary embolism who had an excellent clinical electrocardiographic and echocardiographic response to fibrinolysis.

Keywords : submassive pulmonary embolism, thrombolysis, advanced therapy.

I. Case Report

A 65-year-old man, with a history of recent hospitalization for orthopedic surgery, presented with exertional syncope and progressively worsening dyspnea. On examination he was tachypneic (28 breaths per minute), hypoxemic (oxygen saturation 85 on room air), with heart rate of 115 beats per minute and blood pressure of 130/75 mmHg. The neck vein was distended, there was no heart murmur and the lungs were clear on auscultation. Laboratory evaluation was remarkable for D-dimer 2110 ng/ml (normal < 234 ng/ml) and a cardiac troponin level of 1,7 ng/ml (normal < 0,06 ng/ml). The electrocardiogram (ECG) revealed sinus tachycardia with a rate of 115 per minute, a deep S wave in lead I, a Q wave and inverted T wave in lead III ($S_1Q_3T_3$ syndrome) and a subtle ST elevation in leads aVR and V_1 [Fig. 1]. Transthoracic echocardiography revealed right ventricular dilatation and hypokinesis with moderate tricuspid regurgitation and an estimated right ventricular systolic pressure of 65 mmHg. Doppler studies of the legs showed bilateral proximal deep venous thrombosis, making the diagnosis of pulmonary embolism likely. Urgent contrast-enhanced computed tomograph angiograms [Fig.2] showed bilateral pulmonary embolism. After screening for contraindication to fibrinolysis was performed, the decision was made to proceed with thrombolysis into low risk of bleeding and increased risk of death. 100 mg of tissue plasminogen activator (tpA) was administered over a 2-hour period, and after completion of the fibrinolysis, unfractioned heparin was started without a bolus as a "bridge" to anticoagulation with warfarin. After treatment with intravenous tpA, the patient's respiratory status dramatically improved over a period of several hours, the S wave in lead I and the ST elevation in leads aVR and V_1 on the ECG disappeared and the heart rate slowed down to 78 beats per minute [Fig. 3]. Repeated echocardiography showed that the right ventricular systolic pressure decreased to 35 mmHg. On follow-up, 4 weeks later, the patient's condition was good and the echocardiogram documented normal right ventricular size and function.

II. Discussion

Submassive pulmonary embolism (PE) defines patients who appear hemodynamically stable on admission, but have evidence of right ventricular (RV) dysfunction. This group of patients can be identified by the presence of RV dysfunction detected on physical examination, cardiac biomarkers, ECG, echocardiography and chest CT.

The decision to administer a fibrinolytic agent in addition to heparin anticoagulation requires individualized assessment of the balance of benefits versus risk. Potential benefits include more rapid resolution of symptoms, stabilization of respiratory and cardiovascular function without need for mechanical ventilation or vasopressor support, reduction of RV damage, improved exercise tolerance, prevention of PE recurrence and increased probability of survival. Potential harm includes disabling of fatal haemorrhage, including intracerebral haemorrhage and increased risk of minor haemorrhage, resulting in prolongation of

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hospitalisation and need for blood product replacement. Fibrinolysis is most successful when administered within several days of acute PE. Although the efficacy of fibrinolysis is inversely proportional to the duration of symptoms, effective thrombolysis can be observed up to two weeks after an acute event.

Thrombolysis is indicated in the case of patients with PE who have arterial hypotension or are in shock. In contrast, the benefits of thrombolysis normotensive patients with acute PE are less well established. Results from randomised trials suggested that selected patients with evidence of RV dysfunction and a low risk of bleeding may benefit from early fibrinolysis.[2,3] The decision to select thrombolysis for submassive PE or to maintain anticoagulation alone must be individualized because of paucity of trials to help guide management. On the other hand, some authors conclude that there is no scientific support for thrombolytic therapy in this case.[4] In our patient the dilemma was whether the normotensive patient with RV dysfunction, as detected on echocardiogram and CT scan, and with evidence of myocardial injury, as indicated by a positive troponin test, may benefit from early thrombolytic treatment.

After completion of fibrinolysis, the patient's respiratory status and gas-exchange derangements improved over a period of several hours. The ECG returned to normal and the echocardiogram revealed decreasing of the RV systolic pressure.

III. Conclusion

The normotensive patients with acute PE and evidence of RV dysfunction may benefit from early thrombolysis.

IV. Figure Legends

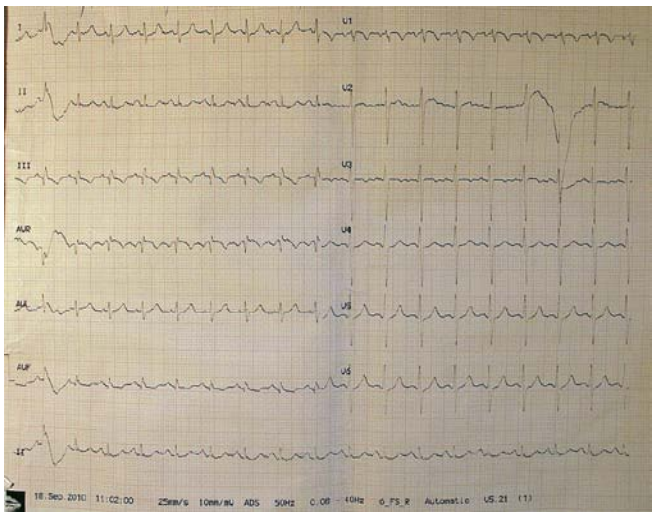

Figure 1 : The ECG on admission shows sinus tachycardia with a rate of 115, a deep S wave in lead I, a Q wave and inverted T wave in lead III ($S_1Q_3T_3$ syndrome) and a subtle ST elevation in leads aVR and V_1

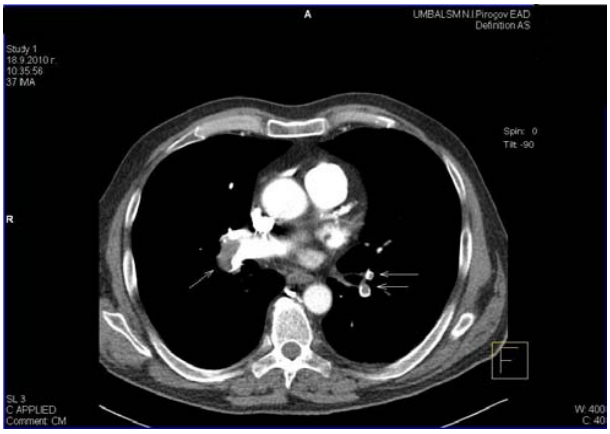

Figure 2 : Multidetector spiral computer tomogram showing bilateral defects (arrows) in the pulmonary artery

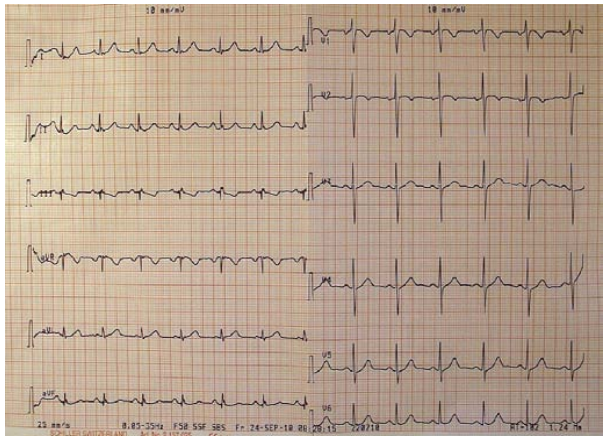

Figure 3 : The ECG performed after completion of fibrinolysis revealed disappearance of S wave in lead I and the ST elevation in leads aVR, V_1 and slowing down of the heart rate to 78

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Content

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- Never confuse figures with tables - there is a difference.

Approach

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- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

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References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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