

Spiritual Affairs & Outreach

(O) *An Examination of the Underlying Factors Associated with Clients at a Community Counselling Centre: Implications for Counselling*

Christine Williams

The Jamaican social fabric is slowly deteriorating. Presently, eighty five percent of Jamaican children are born out of wedlock and living in single parent households (Jamaica Gleaner, 2008), with forty five percent of its homes being headed by women (Planning Institute of Jamaica, 2002). As a result, many of the nation's children are fatherless and are exhibiting behavioural problems and other social disorders. Because of lack of adequate parental guidance, high illiteracy rate, and lack of financial sustainability, many Jamaican households are faced with serious moral and social decay.

The parish of Manchester is not immune to the apathy that the rest of the Jamaican society is exposed to. Northern Caribbean University, since 2003, in its role as a responsible corporate citizen has proactively formed a relationship with two governmental agencies, namely: the Victim Support Unit (VSU) and the Centre for Investigation against Sexual Offences and Child Abuse (CISOCA) to create the Community Counselling and Restorative Justice Centre (CCRJC) to help stymie the tide of Jamaica's rapidly deteriorating society.

In a quest to determine if the centre has been able to effect change within Manchester and its environs; the researcher has analyzed the files and intake forms of all its active cases between January 2009 and January 2010. This analysis provides an examination of the underlying factors associated with clients who come to the centre; the approaches used to deal with their cases; and the strategies employed in order to curtail or minimize the preponderance of related cases in the geographical area.

Descriptive statistics and ANOVA were used to reveal significant differences in the type of cases referred the gender and socio-economic background of the clients; as well as the reason for referrals.

It was recommended that the centre should implement its three-pronged approach of prevention, intervention and employment restorative justice practices in order to stymie the rapid social problems that Jamaica is faced with. Additionally the centre will seek to develop satellite counselling centres, as well as foster greater collaboration between community stakeholders and academic departments at NCU.

College of Natural & Applied Sciences

- (O) *Cyanide Reduction in Cassava Breads: Particle Size Effects*
Mark Anglin Harris and Charles Kofi Koomson

This paper presents a method for detoxifying the bitter cassava during its conversion to cassava bread. Freshly chopped bitter cassava was separated into three particle sizes: 1-2, 0.5-1.0, and <0.5 mm and treated as follows before cooking: (1) water-soaked 5 for hours (2) air-dried (3) air-dried and water-soaked. Each of the above samples was thereafter either pressed for 24 hours or un-pressed, then baked. Levels of cyanide were determined by spectrophotometric analysis with light absorbance at 510 nm following extraction by elution of cyanide vapour condensate on picric acid-impregnated paper in 5 ml of water.

Cyanide gas levels decreased to a greater degree before than after baking. The most effective single factor was particle size. After treatment, the <0.5 mm particles contained 250% less than the 1-2mm particles and 55% less than the 0.5-1.0 mm particles. The decrease in cyanide from the smaller particles was attributed to the exposure of a greater number of cells to catalysis of linamarin cyanohydrins by linamarase. The rise in cyanide levels after baking, which was greater with an increase in particle size, was attributed to, firstly, the denaturing of the cell walls by strong heat. This process allowed the water subsequently added for the duration of 16 hours to complete the break-down of cell walls thereby releasing extra cyanide. The larger particles exhibited greater cyanide release after baking because they contained a greater number of unbroken cells just prior to the baking process.

- (P) *The Effect of Allium Sativum (Garlic) and Hibiscus Sabdariffa*
(Jamaican sorrel) on Cancer Cells

Paul Gyles, Juliet Bailey-Penrod and Patrice Williams-Gordon

This study demonstrates that two natural products can destroy human larynx (hep-2) and lung (A549) cancer cells while having negligible effects on non- cancerous cells (BHK). Viability studies indicated that garlic had a greater anti-neoplastic effect on lung cancer cells than the sorrel extract. DNA electrophoresis showed a unique band of 0.5 kb in cancer cell lines. Events characteristic of cell death including: cell fragmentation, cytoplasmic shrinkage and chromatin condensation were observed. The morphological changes observed in laryngeal cancer cells were more remarkable when treated with sorrel extracts as compared with garlic, thereby suggesting that the mechanisms associated with each treatment modality is cell-type specific. Hep-2 cells proved to be significantly affected by both sorrel extracts (seed and calyx) but more by that of the seed extracts. The fact that Hep-2 cells were destroyed indicates that the natural products (more so the seed extract) has overridden the resistance capacity of the Bcl-2 gene. The A549 cell line also displayed an anti-neoplastic response to all three natural products, with greatest response to the garlic extract followed by the seed extract. These observed differences in degree and format of morphological change suggest that the mechanism of the natural product extract may vary both with cell line and extract treatment. Further investigation will be needed to understand the mechanism by which cancer cells are affected by natural products.

(P) *Prevention of Benign Prostatic Hyperplasia: Effects of Pumpkin and Watermelon Seeds on the Testosterone-Induced Serum Levels of Prostate-Specific Antigen in Rats*

Hugh Saunders, Miguel Francis and Samson Omoregie

The effects of pumpkin and watermelon seeds on the testosterone-induced serum levels of prostate-specific antigen (PSA) were studied in male rats. Sprague-Dawley rats were divided into four groups. An aliquot of 3 mg testosterone/100 g body weight per day was administered to all rats for 21 days, except those of Group A (which served as the control group). Rats in Groups B and C were fed with pumpkin and watermelon seeds respectively for the 21-day period of study while those in group D were fed with Hi-Pro feed. PSA analyses were conducted on the serum of all rats on a weekly basis for the three weeks. Rats in group D responded to the testosterone induction, increasing steadily for the three weeks period to a peak serum PSA level of 32.2 ± 3.7 $\mu\text{g/L}$ in the third week of the study. Serum PSA levels of rats in groups B and C were 2.63 ± 0.47 $\mu\text{g/L}$ and 2.45 ± 0.27 $\mu\text{g/L}$ respectively in comparison to the control group which came to 0.48 ± 0.24 $\mu\text{g/L}$ in the same period. ANOVA analysis of the samples indicated no significant difference between control group and test groups fed pumpkin and watermelon seeds. These rats maintained levels of PSA that indicated that their prostate remained normal and should not be at risk of developing hyperplasia. However, the serum PSA levels in rats fed Hi-Pro feed were significantly high from week 1 to week 3 rising far beyond levels that could be implicative of prostatic hyperplasia. The results suggest that pumpkin and watermelon seeds could possibly prevent increase in serum PSA levels to dangerous levels that could have pointed to development of prostatic hyperplasia. Further studies on the long-term effects of feeding rats with these and other seeds in the same family are following.

(P) *The Emergence of Cloud Computing: An Exploration of this Transformative Distributed Model, its Characteristics and Potential Impact*

Kenrie Hylton

Over the years, there has been an evolution of software development and distribution, with dynamic shifts in where software processing takes place and various derivatives of the foundational client server model. More recently, there has been an ushering in the era of distributed computing on a grand scale. There are now a number of models whereby processing is distributed across multiple clients or servers. These distributed architectures include Grid computing, Peer to Peer (P2P), and one of the latest – Cloud computing which includes data and technology based services being hosted and deployed via the Internet. Small and medium sized businesses stand to benefit from this new platform by allowing them save considerable amount of money on infrastructure by utilizing cloud based services.

Cloud Computing is indeed changing the way businesses structure their technology model. It is also promoting ubiquitous computing where an individual can have access to their data regardless of the medium. As a relatively new concept, cloud computing is garnering quite a bit of attention especially with major industry leaders such as Google, IBM and Microsoft supporting the architecture. This paper seeks to explore this evolution and provide a brief

history, the characteristics and potential impact of this transformative platform on the information technology sector, as well as on facilitating the creation and growth of new and nascent businesses.

(P) *Evaluation of an Artificial Intelligent Integrated Renewable Energy System for Electricity Generation in Equatorial Developing Countries*

Delroy E. Green

Solar, Wind and Bio-fuels electrical technologies are generating an increasing interest as alternative forms of energy in developed countries. Developing countries, for example, regions such as the Caribbean and the African continent, are slowly catching on; especially regions where the solar indices and wind energy are very high and there is readily available bio-fuel producing plants and wastes. The consideration of moving industrial production to these regions requires the need for cheaper, cleaner and more efficient energy. However, the cost of these technologies is currently very high not being economically viable to produce and implement. New innovations, by way of aggressive research and development, are well needed to improve technology and reduce production and implementation costs. There can be multiple benefits – environmental (alleviation of carbon pollution); economic (reduction in tax/levies); and increased productivity. These countries can efficiently trade under the emission trading scheme and effect good environmental impact and reduce costs and dependency on fossil fuels. This study will examine the combination of renewable energy sources for electricity generation at local levels and in particular the case of equatorial regions such as Jamaica in the Caribbean. A computer model will be developed for the simulation of the operation of the integrated system. The energy supply side will include two renewable energy sources, namely wind and solar in comparison to the conventional high cost electricity supplied by the National Grid (JPS Co Ltd.) The model is an Artificial Intelligence electronic control system that monitors the most efficient combination of renewable electricity. Relations among the variables will be attained from the fusion AFS-600 Mixed Signal FPGA, which will be used as the controller of the system with an ARM7 soft processor core support. Solar will be a balancing factor in the supply-demand interaction because of its large availability and its high cost of production. Conclusions will be drawn on (a) the optimal combination of renewable energy sources to achieve economic viability of the system; and (b) evaluation of energy policy.

(P) *Effects of Phytic Acid and Exercise on some Blood Analytes in Rats Orally Exposed to Cadmium*

Tasha Daley, Samson Omoregie, Vincent Wright and Felix Omoruyi

Cadmium is a ubiquitous environmental pollutant of increasing worldwide concern. The uptake of this element is mainly through ingestion of food crops grown on cadmium containing soil. Cadmium is a well-known human carcinogen and a potent nephrotoxin. Phytic acid is a storage form of phosphorus which is found in significant quantities in plant seeds, roots and tubers and has been shown to be high in some food crops grown in Jamaica. The anti-nutrient property of phytic acid is based on its strong ability to chelate multivalent metal ions, including cadmium, precipitate and decrease the availability of these minerals as a result of the formation of very insoluble salts that are poorly absorbed from the gut. In this study, we determined the effects of phytic acid and exercise on the metabolism of cadmium in rats.

Five groups of rats were fed as follows: Group 1 was fed control diet, group 2 was fed control diet supplemented with cadmium and subjected to exercise, group 3 was fed control diet supplemented with phytic acid plus cadmium and subjected to exercise. Group 4 was fed control diet supplemented with cadmium and phytic acid and group 5 was fed control diet supplemented with cadmium. The animals were fed for four weeks and then sacrificed. Blood samples were collected for some cardiac markers, electrolytes, liver enzymes, lipid profile and some renal function evaluation.

The group that was fed control diet supplemented with cadmium displayed increased electrolytes, liver enzymes and cardiac markers compared to other test groups. Similarly, blood urea nitrogen, uric acid and phosphate were increased in group 5 rats compared to other test groups. Increased alkaline phosphatase activity was observed in group 2 rats while amylase activity increased in groups 2 and 4 rats compared to other test groups. These observations suggest that consumption of diet high in phytic acid with increased exercise may be protective against the adverse effects of cadmium.

College of Education & Leadership (CEL)

(O) The Influence of the Department of Graduate Education & Leadership Programmes of Study on Participants' Practice and Personal and Professional Development

Department of Graduate Education & Leadership Faculty

The Department of Graduate Education & Leadership established on the three fundamental pillars of pedagogy, servant leadership, and faith and learning, offers degrees at the masters and the doctoral levels. At the masters level there are four emphases with an enrolment of 160 participants and 71 graduates to date. The doctoral programme has three specializations with an enrolment of 125 participants and 16 graduates. There is no documented information of the influence of the college's programmes on participants' practice and on their personal and professional development. The purpose of this study, therefore, is to ascertain the participants' perceptions regarding the extent to which they are applying the knowledge gained at Department of Graduate Education & Leadership to their personal and professional life, and how they feel this knowledge has impacted the social and economic growth and development of the nation. This study employs a mixed method approach guided by a survey design with the sample comprising of all participants who have completed at least one year in their programme of study. A five point Likert scale questionnaire and open ended questions will be used to gather data. The SPSS software and the Taba inductive method will be used to aid in the analysis of the data. It is hoped that this study will provide students, administrators, accrediting bodies, and faculty with valuable information concerning the influence of participants' programmes of study on their practice, and on their personal and professional development. In addition, the results of the study will provide the college with information regarding the strength of the three pillars on which the college's programmes are anchored, and will serve as a catalyst for the Department to review its approaches to curriculum development, instructional planning, and implementation of its offerings for national development.

(P) *A Descriptive Study of the Effects of an In-service Cooperative Learning Seminar to Train Teachers to Use Cooperative Learning Strategies at a High School in Manchester*

Marie Wilson - McLaughlin

The study was a descriptive action research on the effects of an in-service cooperative learning training seminar to train teachers to use cooperative learning strategies at a high school in Manchester. It was guided by the following three research questions: (a) what are the effects of a cooperative learning training seminar on in-service teachers' attitude toward cooperative learning? (b) what are the effects of a cooperative learning training seminar on in-service teachers' knowledge of the academic and social benefits of cooperative? and (c) what are the teachers' perceptions regarding the implementation of cooperative learning in their classrooms? Eight in-service teachers from the selected high school participated in a four - day cooperative learning training seminar to determine the effects of the cooperative learning training seminar on their willingness to use the strategy. Fifty percent (50%) of the participants confidently expressed a belief in their ability to plan appropriately for cooperative learning and indicated a willingness to make cooperative learning an important part of their future practice. The following recommendations were made based on the findings of the research: (a) cooperative learning training seminars should be undertaken as a school-wide programme to train all teachers to plan for and execute cooperative learning experiences, (b) a teacher study group should be initiated at the high school to provide long term support for the eight in-service teachers who participated in this research, (c) the present study should be replicated using a larger sample in different settings to allow for broader generalization of findings, and (d) the present study should be extended to investigate the actual implementation of cooperative learning techniques, structures, and strategies at the classroom level.

(P) *The Effects of Parental Involvement on Grade Nine Students' Academic Achievement in Four Upgraded High Schools in Region 5, Jamaica*

Yvonne Perriell

Administrators and teachers have the educational expertise of utilizing theoretical and practical experiences in dealing with students, but parental involvement is crucial for improving the educational focus of each child. Parents are involved at the primary level of their children's education but they are not aware of the benefits of parental involvement at the secondary level, hence they are not involved in their adolescents' schooling. The purpose of this study was to explore the components of parental involvement and its relationship to student academic achievement in Mathematics, Reading Comprehension, and Social Studies at the Secondary level. Data were obtained using the cross-sectional survey design, in which 367 students participated in the study. Scores from standardized tests taken in the same school year for all students were also used. In this study 172 parents participated, and four questionnaires were administered to four principals along with a semi-structured interview. Data from all sources were analyzed using descriptive and inferential statistics. The results of this study yielded the following major findings: (a) Parents and students perceived support and encouragement as the major parental involvement activity for enhancing students' academic success, (b) Parents reported that helping with homework was important for improving academic achievement, (c) Students' Achievement scores on standardized tests increased when parents were involved. Administrators reported that: (a) Greater partnership among parents, students, and school is needed in order for students to excel, (b) Parents need to sign formal commitment of involvement when their children are admitted to school, (c) Teachers should conduct home visits to enhance the communication channels between home and school, (d) Parents must assume their responsibility by setting goals, rewarding students, and supporting activities at home and at school, and (e) Students need to be more focused and prepared for the demands of school.

Greater parental involvement is needed particularly in the area of encouragement, support, and participation in school activities. The results indicated that parents who were involved in their Grade 9 children's education had a positive impact on the academic achievement of their children in the areas of Mathematics, Reading Comprehension and Social Studies.

(P) *A Study of Teacher Behaviours that Result in Effective Classroom Management in Selected Schools in Jamaica*

Jacqueline HoShing - Clarke

There are teachers in Jamaica who manage their classrooms effectively; this needs to be recorded so that others may be informed concerning the “best of what exists” in order to improve what they do. The purpose of this study is to describe what effective teachers do to manage their classes in selected Jamaican schools and also to present what research literature recommends as essential for effective classroom management. This appreciative inquiry, a strategy for intentional change (Cooperrider and Srivastva, 1987), was conducted in order to identify the best of what exists in classroom management and to present them to practitioners. This is intended to enhance the practice of teaching, while empowering the teachers. Additionally, these best practices in classroom management will benefit students as they function in the classroom, prepare for the working world, and life in general. The study is important in that it is intended to ignite a reformation in the manner in which teachers manage their classrooms. It is my hope that eventually everyone will benefit because society is in chaos and a change is needed. This research is a qualitative descriptive case study. The data sources were: (a) interviews, (b) observations, (c) review of classroom and other school-related documents, and (d) the review of research literature. Purposive sampling was used in selecting the samples. Six classrooms in three elementary schools located in Jamaica constituted the research field for this inquiry.

Five themes that emerged were: (a) teachers’ instructional behaviours, (b) teacher support, (c) classroom rules and procedures, (d) teaching/learning activities, and (e) classroom environment. The data indicated that essential to effective classroom management was teacher preparation. Teachers of necessity must be equipped with the essential knowledge and skills for effective classroom management. These incorporated (a) the physical classroom arrangement, (b) a positive psychosocial environment, (c) a model of discipline, (d) the use of appropriate teaching strategies, (e) teachers’ knowledge and understanding of students’ behaviours, (f) effective communication, and (g) teacher support systems. Recommendations were made contingent on indications from the data. Among them is that essential support systems for teachers in classroom management be instituted in this region.

College of Business & Hospitality Management

- (O) *The Sustainability of the Jamaican Small Traditional Farmers in Relation to the Impact of Economic Globalization*

Kirkland Anderson

The Jamaican small traditional farmers have been the backbone of rural societies. However, small farmers have faced significant challenges that are derived from both natural and person-made causes. These challenges have intensified since the late 1980s due to economic globalization, which resulted in an explosion in international agricultural trade and reduced prices in agricultural products worldwide. The consequences of these challenges created a multiplier effect, commencing with a massive migration from farming activities, and eventually worsening of the way of life of rural citizens. Recent developments in the international market place, underscore the need for the invigoration of the small traditional farming sub-sector to ensure that outputs substantially increase.

This research study postulates that despite the additional challenges created by economic globalization, the sub-sector may be revitalized and sustained as a result of an increase in endogenous change along with improvements in the operational and administrative functions of agrarian institutions.

An exploratory study was conducted among two hundred and five important stakeholders in five purposively selected parishes of Jamaica. The data was analysed with the aid of Mandel Model for sustainable rural poultry farming. The findings showed that the level of respondents agreeing that small traditional farmers can be; highly efficient is 80 percent, highly productive is 86 percent, stable is 86 percent, durable is 84 percent, comparable is 85 percent and equitable is 84 percent. The overall sustainability level was 84.2 percent. Data was analysed using SPSS.

(P)

The Impact of Crime and Violence on Business: Is there a Solution?

Andrea Baldwin

In a recent study (Baldwin, 2009) it was revealed that of 107 business operators surveyed in South Central Jamaica, over 87.9% indicated that their business operations were being impacted negatively by an environment of excessive crime and violence. These same respondents when asked how they were coping gave varied responses: 49.6% were taking precautions, including setting up a security system, 28.7% stated that they kept going despite the challenges; while 22% were relying on God's guidance. From the same survey, it was revealed that 62.24% of respondents were expecting the government to fix the problem by means of an improved law enforcement and criminal justice system but at the community level, 70% stated that each citizen was responsible for dealing with crime and violence.

These results were obtained among business operators. Using a mixed-methods approach, this research investigation will focus on the impact that crime and violence is having on faculty and students of business and their recommended solutions for its reduction. A regression model will be utilized for establishing a crime and violence trajectory and the *behavior-disposition cycle* (Baldwin, 2007) will form its conceptual framework. A comparative analysis of responses will be presented.

(P) *Economic Implications of Turbulence in Interest Rate, Inflation Rate, and Exchange Rate on the Jamaican Stock Market*

Jason Dennis

The increased inter-relation between financial markets all over the world, which is brought about by globalization, has facilitated almost instantaneous movements of money invested in financial assets. Since emerging markets like Jamaica are less developed and thus, more vulnerable to the contagion effect, this has far reaching economic implications in relation to, the balance of payments, unemployment, investment, economic growth and development, price stability, a competitive currency, etc. thus the relevance of this empirical study on the Jamaican Stock Market, which considers quarterly data from 1993-2005. An Error Correction Model (ECM) was estimated using Ordinary Least Squares (OLS). A long run relationship was identified between stock market index and both inflation rate and interest rate. The results indicated that a shock to interest rate and inflation rate would both result in turbulence in the stock market, with the innovation in inflation being far more adverse. It is therefore extremely critical that Policy Makers and Monetary Authorities put measures in place to maintain price stability, as this could quickly precipitate a financial sector crisis.

(P)

Sports Tourism: Building a National Policy Framework

Dwight Dunn, Noriel Jacobs-Gray and Merlene Senior

Arising from the results of an exploratory research investigation conducted in 2009 on Sports Tourism in Jamaica (Dunn, Gray & Senior, 2009), it was revealed that there is no existing policy framework for the development of sports tourism in Jamaica. Based on interviews conducted with key personnel in the Ministries of Finance, Sports, Culture and Tourism as well as at GC Foster College, MVP Track Club, PIOJ, STATIN and with several sports journalists, it was discovered that there is no evidence of collaboration among these various agencies for the development of sports tourism. In addition, there is no documented evidence of the contribution of sports tourism to Jamaica's Gross Domestic Product (GDP). Consequently, this new research investigation will focus on the requirements for developing a National Sports Tourism Framework for Jamaica. Having such a policy framework would enable the government to assess and optimize the sector's contribution to GDP.

There are several critical elements for building a sports tourism policy framework among which are the following: parliamentary legislation, local and international affiliations and communication networks, local and regional training and education, accountability, budgetary and trusts allocations, sports facilities and multi-industry coordination for hosting mega events inter alia. These factors and others will be investigated for their inclusive value as part of the proposed framework.

Once the framework is developed, the policy document will be presented to the Ministers of Sports, Culture and Tourism as well as other stakeholders for their scrutiny and feedback, after which the document will be refined and further reviewed. It is expected that the production and implementation of such a framework will serve to bring a more coordinated and productive outcome to the burgeoning national resource of sports tourism.

(P) *Students' Performance in Personal Finance and the Administration of Tutorials: Is There a Positive Correlation?*

Yvonne Billings and John McAllister

As a result of continued poor performance of some students in Personal Finance a study was conducted in 2009 (McAllister et al. 2009) to establish whether a correlation existed between students' high school performance in CSEC Math and Accounts and their performance in Personal Finance, a first year college course. The study concluded that there existed a weak positive correlation between students' CSEC exam performance and performance in Personal Finance (Math (0.221, $p < .05$ and Accounts 0.24, $p < .05$). One major recommendation was that structured tutorials in Personal Finance was a possible solution for improving students' performance hence this new research investigation.

In this follow-up study, the objective is to establish structured tutorial sessions and determine if such tutorials will make a difference in students' performance in the course Personal Finance.

Using a quasi-experimental approach, a sample of students from the Personal Finance class will be selected to participate in this investigation. Students will be given a pretest (1st sectional exam) and depending on their performance will be asked to attend four tutorial sessions of one (1) hour each, covering at least a two week period (treatment). These students will be retested (post-test) using the original test, after the tutorial sessions have been administered, and the results of both tests will be compared to assess differences in performance.

With cognizance of the possible influence of extraneous variables, it is expected that the treatment should result in increased performance among students.

School of Religion & Theology

(O) *Textual Criticism and the Journey of the New Testament in Becoming A Book: Implications for the Inspiration of Scripture*

Clinton Baldwin

Although the New Testament books were written by particular individuals, the New Testament as we now have it, is not exactly the product of these original authors but rather it is the product of multiple authors/scribes. This is so because all autographs of the New Testament books have been lost and what we now possess are copies of copies of these books, beginning not from the first century, but from the second century, that is, more than a century after the books were initially written. The later scribes are here designated authors/scribes because their activities did not only involve strict copying of their exemplars but, more importantly, they were theologians who adjusted the copied texts to suit their theological positions. Thus the text of the New Testament, as D.C. Parker describes it, has always remained a “living text.”

Unlike what many may fear, this is not necessarily a disadvantage but rather an advantage. Citing specific examples, this study briefly traces the trajectory of scribal activities to illustrate the compositional layering of the New Testament scripture and show that the nuancing of scripture by the later scribes is in keeping with the messages of scripture itself which have always been changing to meet varying human situations. Thus, inspiration may be more of a dynamic phenomenon. In fact, whereas the scribes were authors/scribes, inspiration may need to be seen more as a community process rather than as an individual-centred event. This study explores the complexities of these features of the New Testament books and draw relevant implications there from.

College of Humanities, Behavioural & Social Sciences

(O) *Attitudes of Jamaican Adventist Religious Leaders and Laypersons towards Persons Living with HIV and AIDS: Pathways to Enhancing the Impact of Professionals*

Orlean Brown -Earle

This study examined the attitudes of Jamaican religious leaders and community laypersons towards persons living with HIV/AIDS (PLWHA). Convenience sampling procedure was used to select one-hundred and eighty four (184) participants from nine parishes across Jamaica. Participants' responses on the Meharry Questionnaire: The Measurement of Attitudes Towards AIDS-Related Issues ($\alpha = 0.6$) were used to provide data for the study. A survey design using descriptive statistics and the independent samples *t*-test was used to determine and compare the attitudes of religious leaders and community laypersons. The results of the study indicate that a significant majority of Seventh-day Adventist religious leaders (80.9%) and community laypersons (75.8%) have very liberal or favourable attitudes towards AIDS-related issues. No significant difference was found between the mean attitudes of Seventh-day Adventist religious leaders and community laypersons towards AIDS-related issues. [$t(127) = -0.98, p = 0.329$]. These results suggest that public education campaigns may have served to increase/influence the liberal attitudes indicated by the research participants. Findings may also have been influenced by the educational level of the sample. These results underscore and provide evidence that Seventh-day Adventist religious leaders in Jamaica are aware of and sensitive to the needs of persons living with HIV/AIDS. Discussed in particular are pathways to strengthen the skills of the participants to help PLWHA. Suggestions for future research are provided.

(P) *The Relationship between Discipline and Academic Achievement of Students: The Albion Experience*

Paulene Gayle-Betten, Lorenzo L. Badalo, Nordia Bogle, Brigitte Vassell

Underperformance in schools has been a major cause for concern in Jamaica; most noticeably is the level of discipline exhibited by students and its relationship to academic achievement. The present study explores the relationship between discipline and academic achievement of students from a primary school in Manchester. Fifty-two (52) students participated in the study. Data were collected using the "Students' Self-Assessment (SSA) of Behaviour Index" and "The Classroom Teachers' Assessment of Students' (ClTaS) Behaviour Checklist". Students' academic achievement was assessed using their grade average. Correlation analysis indicated that there was a statistically significant relationship between academic achievement and discipline; $r = -.493, p < 0.05$. Bivariate analyses indicated that there was a significant difference between male and female as it relates to their discipline level (Males: $M = 92.65, SD = 22.46$ - Females: $M = 79.62, SD = 11.75$; $t(50) = 2.74, p = 0.008$), but there was no statistically significant difference as it relates to their academic achievement (Males: $M = 50.15, SD = 24.28$ -Females: $M = 54.15, SD = 22.70$; $t(50) = 0.60, p = 0.76$). Implications and recommendation

for practice and policy such as the continuation of complementary studies (Restorative Justice Community Development Project) and the need for the determination of significant relational variance ($R^2=0.243$) are discussed.

(P) *Restorative Justice in Albion School: Toward Community Development*
Paulene Gayle-Betten and Grace A. Kelly

This research project embarks on a whole school approach to include the use of Restorative Justice (RJ) practices in the selected school mentioned above. It utilizes both qualitative and quantitative approaches in investigating the impact of RJ practices in creating behaviour change among students, parents, teachers and community members associated with the Albion Primary School in Manchester, Jamaica. The long-term goal is to establish the use of RJ language and practices by students, teachers, parents and community members and to employ RJ practice skills to help settle disputes and heal hurts among themselves. So far, students, teachers, parents and community members have participated in planned RJ practice sensitization sessions. Additional training had also been conducted with principal, teachers and ancillary staff. Currently, training is being conducted for RJ peer mediators involving twenty four (24) students from grades one to six. The project is in its second year and will be extended to the training of parents and other community members in the use of RJ skills. The results so far can be borne out in testimonials from the Principal and some of the teachers. Teachers are reporting better classroom control and children are beginning to take responsibility for their action. The Principal has reported a reduction in the number of physical fights that usually take place on a daily basis. The commitment to the use of RJ practices in the school community can be borne out by the buttons being worn by all teachers, students, ancillary staff and some parents with the slogan: **“I Can Change/There is Hope”**. The project is on-going and has implications for being the model for implementing RJ practices in other schools in the parish.

(P) *Relationship Satisfaction: Marriage versus Common-Law Relationships in the Jamaican*

Context

Deannette Edwards

It has been noted by researchers that common-law relations are replacing marriage with a less stable arrangement and fostering attitudes detrimental to marital quality (Smock 2000). The purpose of the research is to examine the relationship satisfaction of married couples compared with common-law relationships in couples ranging from ages 18-60 years in Central Jamaica. The sample consisted of sixty individuals (thirty couples from Manchester, Clarendon and St. Elizabeth. Data was collected by face to face interviews, telephone interviews, and via the internet. The triangulation mixed method design was used to examine three hypotheses and five qualitative questions. The quantitative aspect used the Cross sectional survey design and the qualitative aspect used the Narrative design by developed themes and categories. The first

hypothesis examined the difference of relationship satisfaction between married and common-law couples. The t-test revealed there was no difference $t(58).267, p > .05$. The Spearman rank order was used to analyze the relationship between socioeconomic status and relationship type; which revealed a positive weak yet non significant relationship ($r_2 = .137$ $p = .297$). A Point biserial was used to analyze the relationship between socioeconomic status and relationship satisfaction which revealed a significant weak positive relationship ($r_{pb} = 0.26$ $p = 0.042$). The qualitative aspect was analyzed using the stories of the participants developed into codes and themes. The mixed method research revealed that generally there are no significant differences in both relationship types. This is in contrast to research done elsewhere. Recommendations are focused on general education through different agencies to improve family values and the marriage relationship to make it more attractive to others.

(P) *Teachers' and Parents' Expectations of Students' Academic Achievement in Selected High Schools in Jamaica*

Jody Lee

Many youth leave secondary school without adequate qualifications or the certification to suitably move into the workplace or on to further studies. Research has indicated that several factors, including expectations, may play a significant role in the achievement of students. The purpose of this concurrent mixed methods study was to comprehensively investigate the role of teachers' and parents' expectations in students' academic achievement. Students' motivation and self-efficacy were also examined because they contribute to students' performance and are often formed through social interaction. The sample consisted of 96 students from 12 high schools in East and Central Jamaica and 5 parents and 3 teachers from these areas. The Parents and Teachers Expectations Questionnaire (PATE), a twenty-three item Likert scale ($\alpha = .63 - .73$) was used in the quantitative component. The data were analyzed using point bi-serial correlation and independent samples *t*-test. Individual interviews of parents and teachers examined the factors involved in creating expectancy effects. The quantitative results indicated that there was no significant relationship between achievement and parents' and teachers' expectations. However, a significant difference was noted in the academic competence of traditional and non-traditional high school students for whom expectations often vary. The parents' and teachers' responses indicate that although their expectations were important to students' achievement, other factors including income and peer influence also played a role. The study highlights the need for deliberate interventions that target specific parent and teacher behaviours. There is need for a revision of the PATE and further research on the relationship between expectations and students academic achievement.

(P)

Public Relations: Write in the Right Way
Elaine Oxamendi-Vicet and Rhoma Tomlinson

During the economic recession and the oncoming post recession era of the 21st Century, public relations has become the single most important discipline in communication studies; as a well written public relations programme provides useful tools to manage negative publicity and can engender corporate goodwill through positive public relations programming. In the Caribbean, several foreign public relations texts are assigned as required reading for students of public relations as curriculum is crafted to prepare the student to transition to being a practitioner. Amidst the literary repertoire based on an analysis of fifteen texts there is a noted absence of the Caribbean perspective. This absence could place the Caribbean public relations practitioner when handling events or cases that are culture specific, at a professional disadvantage. To adequately address this void, research has been undertaken to include the corporate experience of those who engage public relations practitioners, focus groups, interviews and book analyses. The results from the research will provide a practical problem/solution approach and offer the Caribbean student a cultural reference in which they are more comfortable while maintaining international application; making the transition to practitioner easier. The text will celebrate the success of public relations as a profession of choice and provide an understanding of and the means to effecting the business of public relations during the recession and post recession era and in so doing, make a positive contribution to the socio-economic development within the region.

College of Allied Health & Nursing

(O) *Consumers' Awareness of the Role of Certification of Food Handling Establishments*

Tamara Chambers-Richards and Lemuel Brady

In 2000 the Jamaican Ministry of Health embarked on a system of registration for all food handling establishments with a view to ensuring a reduction in the incidence of food borne disease outbreaks. As a consequence, proprietors were required to register their food handling establishments and publicly display the certificate. Where this was done it signified that it was safe to eat in or purchase food from the particular establishment. In collaboration with the Southern Regional Health Authority (SRHA) and the Manchester Public Health Department, 506 questionnaires were administered to random samples of the public in the main metropolitan communities of Mandeville, Porus and Christiana in the parish of Manchester. The focus was to determine the extent to which the general public is aware of the certification of food handling establishments and its significance in ensuring the safe handling of food and safeguarding the health and well being of the consumer.

Ninety five percent (95%) of the respondents stated that they usually eat while away from home. Though 94% were aware that food service establishments should be certified by the Health Authorities, 75% stated that they did not ask to see the certificate if it were not displayed, while 70% went ahead and bought food anyway. Of the 29% who indicated that they did not eat from places where certificates were not displayed, 26% were concerned about their health and safety. Only 33% stated that certification is a sign of a safe place to eat. It can therefore be concluded that there is awareness that food handling establishments should be certified by public health authorities. However, the purpose of certification is not widely known and the lack of certification displayed at food service establishments is not a deterrent to consumers as they do not link certification to safety of food.

(P)

Multisample Semi-Automatic Phlebotomy Device

Delbert Robinson

Conventional multisample collection of blood employs an adapter with attached needle and evacuated tubes which are filled and removed in a process referred to as 'tube changing'. The piercing or removal of a tube may result in the shifting of the needle in terms of angle or position in the vein which lead to major discomfort, injuries such as puncturing underside of vein resulting in hematomas, as well as the collapsing of the vein resulting in the cessation of blood flow into the tube. This presents the need for devices and procedures that reduce the occurrence of such events allowing for ease and comfort in obtaining blood samples.

This project aims to provide one such solution through the design of a multisample semi-automatic phlebotomy device which vastly reduces or eliminates the mishaps and discomforts encountered during tube changing as seen in the conventional methods of multisample collection.

This device is expected to allow for the preloading of up to six evacuated tubes for collection of blood specimens. The device is semi-automatic allowing for the selecting, puncturing, filling and agitating of each tube by the simple action of pulling a lever.

Guest Presenters

The Role of Advanced Software in the Research and Development Innovation Process

Alfredo Trevino,

VP, Operations, Meso America Siemens PLM Software

Research and Development is a critical function within organizations. However, many times, Research and Development teams are under severe pressure to improve product pipelines, accelerate time to market, and improve margins on existing products, while maintaining strict adherence to quality principles and regulatory requirements. Join this presentation to learn how an innovation process can be supported and executed using advanced software such as CAD/CAM/CAE, Digital Lifecycle Management and Digital Manufacturing solutions.

The Role of Product Lifecycle Management Software

Erica Simmons

**Global Marketing Manager, Energy and Utilities Industry
Siemens PLM Software**

There has never been a more challenging time for the Energy and Utilities industry. The world's environment and climate are front and center in today's political, legislative and social agenda. The solutions for tomorrow's power industry must be innovative and smart. Analysts and consultants agree that innovation is the key to creating sustainable solutions for the Energy Industry. Join this presentation to learn about how advanced PLM software that can manage the data and information concerning the entire plant lifecycle from its initial design to construction, operation and maintenance.