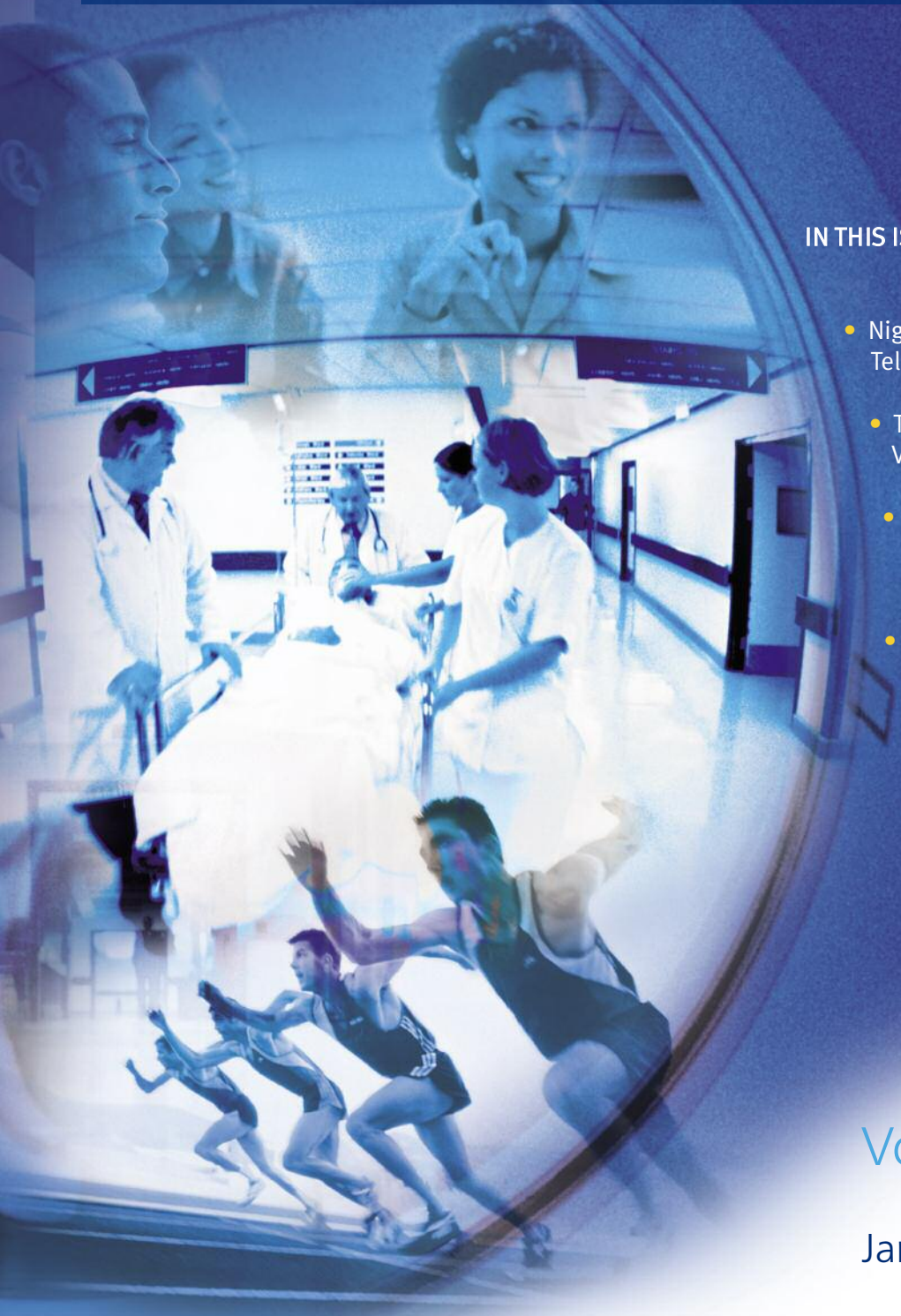
National Institute of Health Sciences

Research Bulletin



IN THIS ISSUE:

Volume 7 Issue 1

January 2014

NATIONAL INSTITUTE OF HEALTH SCIENCES

UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

NATIONAL INSTITUTE OF HEALTH SCIENCES

Research Bulletin

Volume 7 Issue 1

ISSN: 1649-0681

Volume 7
Issue 1

Produced by Avid Graphic Design

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Contents

Contents

Contents

Contents

Abstracts

Research Bulletin
Volume 7 Issue 1

Trends in Hospitalisation for Acute Myocardial Infarction in Ireland, 1997-2008

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OBJECTIVE

To study temporal and gender trends in age standardised hospitalisation rates, in-hospital mortality rates and indicators of health service use for acute myocardial infarction (AMI) and the sub-categories ST elevation MI (STEMI) and non-ST elevation MI (NSTEMI) in Ireland, 1997-2008.

METHODOLOGY

Anonymised data from Hospital In-Patient Enquiry were studied for the ICD codes covering STEMI and NSTEMI in all 39 acute hospitals in Ireland over a 12 year period. Age standardisation (direct method) was used to study hospitalisation and in-hospital mortality rates. Joinpoint regression analysis was undertaken to identify significant inflection points in hospitalisation trends.

Main Outcome Measures

Age standardised hospitalisation rates, in-hospital mortality and indicators of health service use (length of stay, bed days) for AMI, STEMI and NSTEMI patients.

RESULTS

From 1997 to 2008 hospitalisation rates for AMI decreased by 27% and by 68% for STEMI patients (test for trend $p<0.001$), and increased by 122% for NSTEMI, (test for trend $p<0.001$). The mean age of male STEMI patients decreased ($p<0.01$) while those for the remaining groupings of AMI and subcategories increased. The proportion of males increased significantly for STEMI and NSTEMI ($p<0.001$). In-hospital mortality decreased steadily ($p=0.01$ STEMI, $p=0.02$ NSTEMI), as did median length of stay.

CONCLUSIONS

We find a steady decrease in hospitalisation rates with AMI and a shift away from STEMI towards rising rates of NSTEMI patients who are increasingly older. In an ageing population and with increasing survival, surveillance of acute coronary syndrome and allied conditions is necessary to inform clinicians and policy makers.

Audit of Generic Prescribing In Medical Wards

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INTRODUCTION

The HSE has advised doctors to prescribe medicine using the generic name of its active ingredient. Use of the generic name not only reduces the potential for confusion and error, but it is cost-effective and safe for the patient.

OBJECTIVE

The overall purpose was to evaluate compliance with best practice and compare it to national guidelines.

1. Assess the practice of generic prescribing in acute medical wards in University Hospital Ennis.
2. To improve the generic prescription of most commonly prescribed medication.

METHODOLOGY

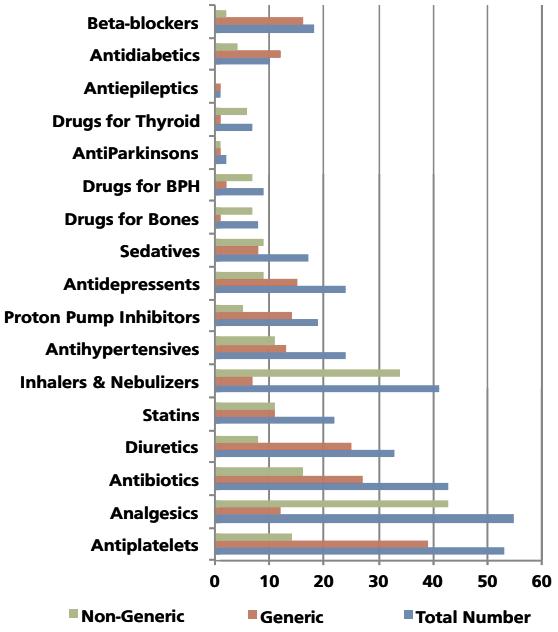
In audit committee the need for an audit about generic prescribing emerged. All three medical consultants and the senior pharmacist in the hospital were agreed. Lists of medicines, which were common and stocked all the time in the hospital pharmacy, were given to NCHDs and to medical consultants. The audit was undertaken after 10 days. A prospective analysis of drug kardex's of 50 patients was performed on day of audit in all medical wards in October 2012.This resulted in analysis of 610 medications. Data was analysed by putting the results from the audit tool into an excel database with results/percentages displayed in table format.

RESULTS

- The total number of patients on the day of the audit was 50, 42% (n=21) in male medical ward, 46% (n=23) in female ward, 12% (n=6) in HDU. The total number of drugs prescribed was 610, out of which, generic prescription comprised 51% (n=313) and non-generic prescription comprised 49% (n=297).
- Drugs commonly prescribed were in the following order. Antiplatelets, antibiotics, analgesics, diuretics, statins, nebulizers, proton pump inhibitors, antihypertensives, beta blockers, sedatives, antidepressants, drugs for BPH, thyroid medication, biphosphonates and calcium, Vitamin D supplements.

The total number of anti-platelets prescribed was 53, 74% (n=39) were generic and 26% (n=14) were non-generic. Analgesics were second most prescribed medication and out of 55 medications 22% (n=12) were generically prescribed and 18% (n=43) were non-generic. The total number of antibiotics prescribed was 43. 63% (n=27) were in generic names and 37% (n=16) were non-generic. Diuretics were the fourth most commonly prescribed drugs and 76% (n=25) were generically prescribed and 24% (n=8) were non-generic. Statins were prescribed for 22 patients (n=22) out of which 50% (n=11) were generic and 50% (n=11) were non-generic. Inhalers and nebulizers were prescribed for 21 patients (n=41) and only 17% (n=7) were generic and 83% (n=34) were non-generic. Among antihypertensives 54% (n=13) were generic and 46% (n=11) were non-generic. Proton pump inhibitors were prescribed for 19 patients. 85% (n=14) were generic and 15% (n=5) were non-generic. Antidepressant generic prescription was 63% (n=15), non-generic 38% (n=9). 47% of sedatives were generic. See Figure1.

Figure 1: Final Audit Results



CONCLUSION

It is obvious that generic prescription in our hospital is not in line with best practice. The generic name of the medication was utilised only in 50% of cases, (n=313). This is considerably low. Failure to prescribe medication using generic names may be because of familiarity of NCHDs with certain brands. It is clearly evident that generic prescription of most commonly prescribed medication is below standard and there is a lot of room for improvements in this area.

RECOMMENDATION

- Adequate training of doctors on generic prescribing should be arranged at time of induction.
- All doctors should be assessed individually and scrutinized to identify poor performers and appropriate actions should be taken to train them.
- Arrange regular short lectures to remind doctors about the importance of prescribing medications in generic names.
- Re-audit in 2 months.

| Back to Contents |

Venous Thromboembolism Risk Assessment of Acute Medical Patients - An Audit

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INTRODUCTION

Deep venous thrombosis (DVT) and pulmonary embolism (PE) are manifestations of venous thromboembolism (VTE). Symptoms of DVT may include leg oedema, pain, tenderness, warmth, erythema or clinical symptoms of PE. Diagnosis is often difficult or missed, but the complications are serious. It is estimated that 25,000 people in the UK die from preventable hospital acquired VTE every year.[1] Moreover, post-thrombotic syndrome, recurrent DVT's and paradoxic emboli are further serious complications. It is estimated that the use of low molecular weight and unfractionated heparins in 'at risk' patients can reduce symptomatic VTE disease by up to 50% and fatal PE by nearly two thirds.[2] Despite this, it is widely reported that VTE prophylaxis is suboptimal.[1-4] Optimisation would result in better patient outcomes, shorter length of hospital admission and therefore reduced overall cost.[3, 4] It was our objective to audit VTE prophylaxis of acute medical patients on admission to University Hospital Limerick.

METHODOLOGY

In this retrospective study, medical patients admitted through the Department of Medicine for the Elderly, all aged 15 and upwards were assessed on a single date in January 2013. A proforma based on the NICE Clinical Guideline 92, 'Venous thromboembolism: reducing the risk', January 2010, was used as the audit tool. Information was obtained from the admission note and drug kardex. All patients on the medical wards were included. Risk assessment within the first 24 hours only was included. Risk factors for bleeding included: active bleeding, acquired bleeding disorders, concurrent use of anticoagulants, expected lumbar puncture/epidural/spinal anaesthesia within 12 hours or in the previous 4 hours, acute stroke, thrombocytopenia, uncontrolled systolic hypertension and untreated inherited bleeding disorders. Risk factors for VTE included: reduced mobility for ≥3 days or reduced mobility relative to normal plus active cancer or cancer treatment, age >60 years, critical care admission, dehydration, known thrombophilia, obesity, one or more significant medical conditions, personal history or first degree relative with a history of VTE, use of HRT/OCP or varicose veins with phlebitis.

RESULTS

The median age of the 52 patients included was 82 years old. 71% were assessed for risk of VTE/bleeding. 31% had at least one risk factor for bleeding and 100% had at least one risk factor for VTE. Pharmacological prophylaxis was initiated in 37% of patients; no patients received mechanical VTE prophylaxis in the form of TEDS (1 patient received TEDS on day 5 post-admission). Specifically, 65% of all patients received appropriate pharmacological VTE prophylaxis; it was given appropriately to 36% and not given appropriately to 29%. 35% of patients should have received pharmacological VTE prophylaxis but did not. No patient received pharmacological VTE prophylaxis inappropriately. Overall, 51% of the 'at risk' group received VTE prophylaxis.

CONCLUSIONS

This audit reports the suboptimal prescribing of VTE prophylaxis in medical admissions to a tertiary care Irish University teaching hospital. Only 51% of 'at risk' patients received pharmacological VTE prophylaxis and none received mechanical VTE prophylaxis. This study is limited by the relatively small number of patients. However, similar results have been published previously.[1-4] It emphasises the under-usage of simple mechanical VTE prophylaxis. Moreover, it highlights the challenge of changing staff, as a similar audit cycle including an education session had been conducted the previous year. Our recommendations following this audit include ongoing education, amendment of the admission proforma to include a section related to VTE/bleeding risk assessment, and re-audit thereafter.

REFERENCES

Available on request.

Warfarin in the over 80s - A Risk Benefit Assessment at St. John's Hospital, Limerick

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INTRODUCTION

It is now well established that atrial fibrillation is the most common cause of embolic stroke and is directly responsible for more than one third of all strokes in persons 80-89 years of age.[1] Thus, anticoagulation therapy to prevent stroke is of paramount importance. Warfarin is the recommended treatment for embolic stroke prophylaxis in AF in intermediate to high risk patients. The relative benefit of warfarin compared with aspirin in preventing embolic stroke is well known.[5,6] However, warfarin therapy is not without risk. The association of hemorrhagic complications with warfarin use is well established, and elderly patients appear to be at higher risk.

OBJECTIVE

We aimed to assess the safety and feasibility of Warfarin in the over 80s. We were concerned about the potential risks of anticoagulation in this age group.

METHODOLOGY

Data was retrospectively collected from the medical records of all patients >80 years of age, who were receiving warfarin for atrial fibrillation or other diagnoses. A purpose designed data collection form was used to collect relevant data.

RESULTS

A total of 50 patients over 80, mean age 84 years (30 males), attending our pharmacist-led warfarin clinic were reviewed. Data collected included: Underlying diagnosis and co-morbidities, recent eGFR, current $CHADS_2$ Score and HAS-BLED Score, weekly alcohol consumption, risk and history of falls, lying and standing BP and stability of INR. $CHADS_2$ score was calculated to assess risk of thromboembolism. It was ≥ 2 for 43 patients. HAS-BLED score was also calculated to assess their risk of bleeding. 46 patients scored ≤3. Only 4 patients had HAS-BLED score of 4.These 4 patients had a high $CHADS_2$ score at the same time. All 50 patients attended warfarin clinic regularly and their INR was found to be quite stable. Alcohol consumption was also assessed and 4 patients were found to have high alcohol intake (≥21 units /week). 8 patients were on aspirin concomitantly.

Our audit showed, $CHADS_2$ score was appropriately used for assessment of stroke risk in patients with atrial fibrillation. HAS-BLED score for most of our patients showed low risk of bleeding.

In a recent Consensus Conference organized by the Royal College of Physicians of Edinburgh in 2012, it is highlighted that all patients with AF should have a formal stroke risk assessment with a scoring tool such as CHA_2DS_2-VAS_c. It also states that the use of the HAS-BLED score can help identify bleeding risks.

In a study by Feng et al. it appears that an INR of 2.0 to 3.0 provides the best balance between bleeding risk and stroke prevention benefit.[7] SPORTIF III and SPORTIF V trials showed rate of bleeding was higher among patients who had poor INR control compared with those with good control (goal INR 2.0-3.0).[9] All of the patients, included in audit had good INR control. They were regularly monitored in pharmacist-led Warfarin clinic.

In the Birmingham Atrial Fibrillation Treatment of the Aged Trial, there was no difference in the rates of ICH between aspirin and warfarin treated groups with a goal INR of 2.0 to 3.0.[10]

CONCLUSION

The population of elderly patients presents challenges with regard to the decision to provide anticoagulation treatment. Our study shows that most elderly patients are on Warfarin for AF, and treatment was justified by their $CHADS_2$ score. The few patients with high HAS-BLED score and increased risk of falls also had a high $CHADS_2$ score and the benefit of warfarin outweighed the risk of bleeding. Warfarin treatment is safe in the over 80s provided they are monitored closely and they have regular medical review.

| Back to Contents |

The Establishment of an Orthogeriatric Service Improves Patient Outcomes Following a Hip Fracture

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Lenehan, B.,[2]
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INTRODUCTION

A multidisciplinary approach has been shown to improve the outcomes of older patients who have sustained a fragility fracture. We piloted an orthogeriatric service at University Hospital Limerick (UHL) for patients who have had a femoral neck fracture to determine if there was a change in major patient outcomes before and after establishment of the service.

METHODOLOGY

All patient data was collected prospectively on an orthogeriatric filemaker database from July 2011 to July 2012. Data was compared to previously recorded data (Irish Hip Fracture Database) on a cohort of hip fracture patients admitted to the same orthopaedic trauma unit from July 2009 to July 2010.

RESULTS

Length of acute hospital stay was significantly reduced from a median of ten to eight days (U= -3.768, P=0.0002) following establishment of the orthogeriatric service. Although in-hospital mortality rate, for the year following, compared with prior to the establishment of the orthogeriatric service, was reduced from 4.4% to 1.9%, this reduction was not statistically significant (x^2=2.190, P=0.139). However, one-year mortality rate was significantly reduced (x^2=13.343, P= 0.0003) from 19% to 9.7% following the initiation of the perioperative service. The orthogeriatric service significantly reduced the number of medical consults required from 15% to 6% of patients (x^2=7.143, P=0.0075). Similarly, there was a significant reduction of 19% in the number of patients requiring further rehabilitation (x^2 =26.586, P=0.0001). Patients in the pre-service establishment group were twice as likely to be discharged to a nursing home (OR=2, CI= 1.102-3.629) and thus more patients in the orthogeriatric service group experienced a significant preservation of their independency following femoral neck fracture (x^2= 5.335, P=0.0209).

CONCLUSIONS

The establishment of an orthogeriatric service at UHL resulted in enhanced management of patients following a hip fracture, as reflected by significant improvements in patient outcomes. Reduction in bed days used and use of other medical and rehabilitation resources could result in significant financial savings to the hospital.

PRESENTED

At the University Hospital Limerick Inaugural Research Symposium in the Strand Hotel, Limerick City on October 18th, 2013 as a poster presentation.

FUNDING

Carla Henderson would like to acknowledge the student research bursary provided by Merck Sharp & Dohme.

Cholesteatoma from a General Practitioner Perspective - Missed Diagnosis or Missed Suspicion?

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OBJECTIVE

Chronic otitis media with cholesteatoma is a benign growth of keratinizing squamous cell epithelium involving the middle ear and mastoid air cells. Presentation is often subtle with mild symptoms. The diagnosis can be challenging, easily missed and often impossible for General Practitioners (GPs), potentially leading to serious complications and medico-legal consequences.

OBJECTIVE

To investigate what the most common clinical features were on first presentation and to evaluate the different stages of this condition from the time of first presentation to the time of definitive diagnosis and ultimately provide a template for GPs in order to reduce the incidence of missed diagnosis/suspicion.

METHODOLOGY

A retrospective assessment of a series of patients records who underwent surgical exploration with modified radical mastoidectomy for middle ear cholesteatoma with particular reference to content of GP letters, presenting signs and symptoms, mode of and duration to diagnosis and operative detail.

RESULTS

We retrospectively reviewed the charts of 50 patients who had had modified radical mastoidectomy performed for cholesteatoma. We found that the average time from GP referral to MRM was 20 months. Hearing loss (82%) and ottorhea (81%) were the predominant symptom complaints at presentation. Only 34% of patients were accurately diagnosed on their first clinic visit and 44% of patients required and EUA before a diagnosis could be made. 60% of patients had an attic perforation, 100% had visible keratin in middle ear cavity and 13% had facial nerve dehiscence.

CONCLUSIONS

Definitive diagnosis of cholesteatoma is only made by microscopic assessment either in the clinic or during surgery and therefore from a GP point of view, it is a case of missed suspicion not a missed or delay in diagnosis.

| Back to Contents |

Night-Time Blood Pressure - Does Dipping Tell the Full Story?

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INTRODUCTION

The prognostic significance of abnormal circadian blood pressure patterns is well recognised. Much research has focused on the prognostic importance of nocturnal dipping and absolute night-time blood pressure values, however, which of these variables should be the primary target for therapy remains unclear. Subclinical target organ damage is a prognostic marker for future cardiovascular events. It can be detected in the heart, kidneys, brain, vasculature and retina by various methods. Our aim is to determine whether absolute night-time blood pressure levels or dipping status are better associated with subclinical target organ damage.

METHODOLOGY

The Mitchelstown Cohort was established to examine cardiovascular health in a middle-aged Irish adult population sample recruited from one large primary care centre.[1] Ambulatory blood pressure monitoring was performed using the MEDITECH ABPM-05 on a subgroup of the sample. Night-time blood pressure was categorised by absolute levels and dipping status. Subclinical target organ damage was documented by Cornell Product left ventricular hypertrophy (LVH) voltage criteria on electrocardiogram (ECG) and urine albumin:creatinine ratio (ACR) >1.1 mg/mmol.[2] Multi-variable logistic regress-ion analysis was used to assess the association between night-time blood pressure and target organ damage.

RESULTS

Of 2,047 participants, 1,207 (response rate 59%), under-went 24 hour ambulatory blood pressure monitoring. We excluded 135 studies due to incomplete data. Of 1,072 participants, 178 (17%) had evidence of subclinical target organ damage. Those with target organ damage were more likely to have a diagnosis of hypertension. Of 590 categorised as dippers, 165 (28%) had persistent elevation in their night-time blood pressure. Of 232 non-dippers, 118 (51%) had normal night-time blood pressure. In multi-variable analysis dipping status was not associated with increased risk of target organ damage. Each 10mmHg rise in night-time systolic blood pressure increased the odds of target organ damage. Odds ratio (OR) for ACR ≥1.1 mg/mmol was 1.5 (95% CI 1.2-1.9) and OR of ECG LVH was 1.3 (95% CI 1.0 -1.7).

CONCLUSIONS

Categorisation by absolute value rather than dipping status may be a better indication of risk associated with night-time blood pressure. It is more straightforward and may be easier to apply in daily clinical practice. An ECG and spot urine sample are recommended as first line in the evaluation of those with hypertension. A practical approach of categorising blood pressure by absolute ABPM values and using ECG LVH and ACR to document subclinical target organ damage may help with risk stratification and decision making regarding treatment at the time of hypertension diagnosis. Further interventional studies are required to determine if there is a benefit in specifically targeting absolute night-time blood pressure levels with respect to patient important outcomes.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the British Hypertension Society meeting in University of Greenwich, London on September 9th, 2013, at the Irish Cardiac Society meeting in Killarney on October 5th, 2013 and at the Faculty of Public Health Medicine Winter Scientific Meeting in the Royal College of Physicians of Ireland, Dublin on December 11th, 2013.

FUNDING

This research has been funded by the Health Research Board and the Irish Heart Foundation.

ACKNOWLEDGEMENT

The authors wish to acknowledge and thank the participants and staff of the Livinghealth Clinic, Mitchelstown, Co Cork.

Demonstration Skills and Knowledge of Use of Inhalers are Lacking among Non-Consultant Hospital Doctors and Nurses

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INTRODUCTION

Limited information is available on the knowledge of healthcare professionals regarding inhaled medications and devices for their administration.[1]

METHODOLOGY

A prospective audit of non-consultant hospital doctors (NCHD) and nurses was carried out. A total of 70 subjects (20 nurses, 50 NCHDs) completed questionnaires about the most commonly prescribed inhalers (Spiriva, Seretide, Symbicort, Beclasone, Ventolin) and underwent evaluation of their demonstration skills for meter-dose inhaler (MDI), Easibreathe, Turbohaler, Diskus, Handihaler, Respimat.

RESULTS

Ventolin was the most familiar inhaler: 94% of doctors and 85% of nurses knew its generic name, 86% of doctors and 60% of nurses knew its drug class and 75% of both knew frequency of use. Only 12% of doctors (vs 55% of nurses) knew its correct dosage.

Least familiarity was shown for Symbicort (generic name) (22% doctors vs 10% nurses), its drug class (34% doctors vs 25% nurses) and frequency of usage (42% doctors vs 70% nurses).

Nurses were more familiar with devices: 60% named correct device for Seretide, 50% for Ventolin and 40% for the remainder. For doctors: 24% Seretide, 18% Ventolin, 16% Beclasone, 14% Symbicort and 8% Spiriva.

80% of doctors and 60% of nurses demonstrated the correct use of MDI. Demonstration skills were least successful for Respimat (16% doctors; 25% nurses).

CONCLUSION

Knowledge of inhalers among healthcare professionals is lacking. Doctors demonstrate better knowledge about the generic names and drug classes of inhalers than nurses. Nurses' knowledge is better for doses, frequency of use and devices. Education of healthcare professionals about inhaled respiratory medication is extremely important.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the European Respiratory Society Meeting in Barcelona on September 8th, 2013.

| Back to Contents |

Does Contact with a Podiatrist Prevent the Occurrence of a Lower Extremity Amputation in People with Diabetes? - A Systematic Review and Meta-Analysis

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ABSTRACT

The aim of this research was to determine the effect of contact with a podiatrist on the occurrence of lower extremity amputation (LEA) in people with diabetes.

We conducted a systematic review of available literature on the effect of contact with a podiatrist on the risk of lower extremity amputation in people with diabetes. Eligible studies were identified through searches of PUBMED, CINAHL, EMBASE (Excerpta Medica), and Cochrane databases. Published randomised and analytical observational studies were included. Two reviewers independently assessed titles, abstracts, and full articles to identify eligible studies and extracted relevant data. Meta-analysis was performed separately for randomised and non-randomised studies.

Six studies met the inclusion criteria and five provided data included in meta-analysis. The identified studies were heterogenous in design and included people with diabetes at both low and high risk of amputation. Contact with a podiatrist did not significantly affect the RR of LEA in a meta-analysis of available data from RCTs; (1.4, 95% CI 0.2-9.8, 2 RCTs) or from cohort studies; (0.7, 95% CI 0.4-1.3, 3 Cohort studies with 4 substudies in one cohort).

There is very limited data available on the effect of contact with a podiatrist on the risk of LEA in people with diabetes.

SOURCE

Buckley, CM, Perry, IJ, Bradley, CP et al. Does contact with a podiatrist prevent the occurrence of a lower extremity amputation in people with diabetes? A systematic review and meta-analysis. BMJ Open 2013;3:e002331.doi:10.1136/bmjopen-2012-002331

FUNDING

This project is partially funded by the Health Research Board, Ireland (Grant Reference Number: HPF/2009/79) and partially funded by the Irish College of General Practitioners (Research and Education Foundation).

The Changing Trend of Abdominal Ventral Herniorrhaphy

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INTRODUCTION

The laparoscopic repair of ventral hernia is a relatively new approach and gaining popularity for the repair of medium to large sized para-umbilical/ventral hernia. This study determined the efficacy of laparoscopic repair of primary para-umblical/recurrent, port-site and incisional and abdominal ventral hernias, using a mesh technique.

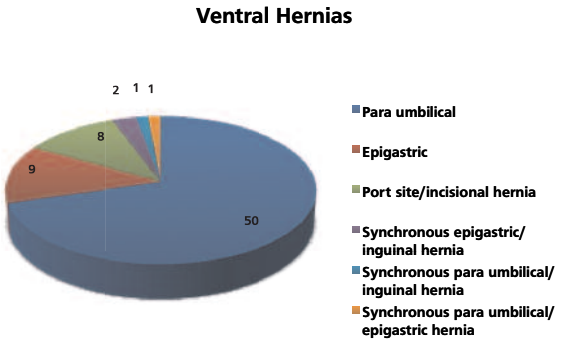
METHODOLOGY

A prospective analysis of a database of para-umbilical/recurrent, port-site and incisional and abdominal ventral hernia, repaired by laparoscopic approach from April 2008 to July 2012 was carried out at the Midland Regional Hospital in Tullamore. A standard technique using Parietex™ Composite or Ethicon Physiomesh™ stapled with absorbable tackers to the anterior abdominal wall over the defect was employed. Patients undergoing open technique repair were excluded. Details were collected from the patient records and using direct telephonic inquiry after taking verbal consent as a set protocol.

RESULTS

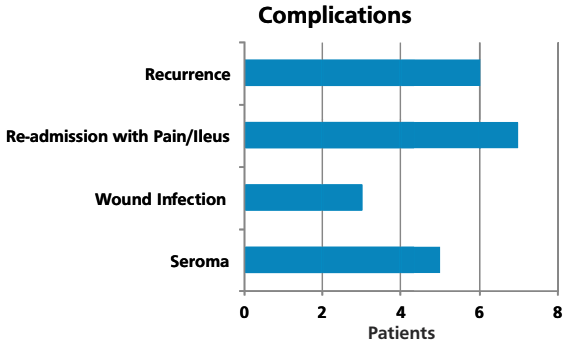
A total of 71 consecutive patients was included. Male-female ratio 52:19 and mean age was 53.6 years. Para-umblical 50(70.4%), epigastric 9(12.67%), port-site and incisional hernia 8(11.27%), synchronous epigastric/inguinal hernia 2(2.82%), para-umbilical/inguinal hernia 1(1.41%) and para-umblical/epigastric hernia 1(1.41%). See Figure 1.

Figure 1



Paritex mesh used in 39(54.93%), Physiomesh 24(33.8%), Bard/Ventralight 3(4.23%) and 5 unknown mesh (7%). The day surgery rate was 27(38%). A total of 44(61.97%) patients were hospitalised due to a combination of, vomiting, late surgery, urinary retention, diabetes mellitus, post-operative pain and miscellaneous reasons. Post-operative seroma occurred in 5 patients (7.04%). Wound infection occurred in 4 cases (5.6%). Seven patients (9.86%) were re-admitted due to abdominal pain and ileus but managed conservatively, 64 patients (90.1%) returned to work within 3-4 weeks. The follow-up period was 51 months and 88% patients rated satisfied and found symptom free. The 4 years and 3 months recurrence rate was 8.45%. See Figure 2.

Figure 2



CONCLUSION

Well-performed laparoscopic mesh repair of ventral hernia has no major intra-operative complications and we find it to be a very effective approach with acceptable recurrence rate, high patient satisfaction and improved quality of life. Cost limitation is well adjusted in long term saving of re-operation expenses and early resumption at work.

| Back to Contents |

Referred Otalgia

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INTRODUCTION

Otalgia is a common clinical conundrum presenting to ENT clinics worldwide and few attempts have been made to provide an evidence-based structured approach to patients with this diagnosis. Harvey et al. pointed out that the causes of referred otalgia could be summarized into a group of causative factors known as the "Ten Ts." Although this is a laudable attempt at an *aide memoire*, we believe that the list is not comprehensive and that other important causes should be incorporated into this approach. Here we present a series of patients ultimately diagnosed with referred otalgia and assess the maxim of "Ten Ts" with regard to the appropriateness of its use in a structured approach to patients with this suspected condition.

METHODOLOGY

A retrospective chart review was performed on all patients presenting with referred otalgia. Patients were defined as having referred otalgia on the basis of otalgia with a documented normal tympanic membrane and normal tympanometry. Normal tympanometry was used to rule out both underlying effusions and any evidence of Eustachian tube dysfunction. Collected data was analyzed for the commonest causes of referred otalgia, to provide an incidence rate for each recognised aetiology, and to assess the previously suggested axiom of the "Ten Ts."

RESULTS

A total number of 228 cases were found to fulfil the inclusion criteria. Our study shows that the majority of causes of referred otalgia can be grouped into "Thirteen Ts." (See Table 1).

Table1 - Aetiologic Causes Presenting with Referred Otalgia to a Secondary ENT Referral Unit

	Differential Diagnoses	Number of Patients Presenting as Primary Symptom
1	Tender Neck/Torticollis	95
2	TMJ Dysfunction	60
3	Throat	32
4	Teeth	11
5	Tonsil	8
6	Turbinate	8
7	Tongue	6
8	Thyroid	5
9	Tube (Post-Nasal Space)	0
10	Temporalis	0
11	Trachea	0
12	Temporal Bone (including Cerebellopontine Angle)	0
13	Thorax	0

CONCLUSIONS

Referred otalgia in a normal-appearing ear is a common clinical problem with myriad causes. Heretofore, no published literature was available relating to the incidence/prevalence of the common causes of referred otalgia. Our experience has led us to believe that the majority of these cases will be referred from the neck (bone and soft tissue), TMJ and dental pathology with a minority relating to more serious underlying pathology. Clinical assessment should be targeted to reflect the broad-ranging aetiologies of this condition.

Hyoid Bone Tenderness as a Clinical Indicator of Laryngeal Pathology

O'Rourke, C., Attique, S., Rehman, A., Fenton, J.E. Department of Otolaryngology/ Head and Neck Surgery, University Hospital Limerick

INTRODUCTION

The primary outcome of the study is to assess if there is any association with hyoid tenderness and laryngeal pathology.

METHODOLOGY

This is a retrospective case control study. In all, 94 subjects were identified. These were divided into two groups, those with hyoid tenderness and those without hyoid tenderness. Presenting complaints and findings on nasal laryngoscopy were compared to identify any association between hyoid tenderness and laryngeal pathology.

RESULTS

There were a total of 76 (80.9%) female and 18 (19.1%) male in the study. Analysis of presenting complaints showed dysphonia ($p<0.001$, OR=4.82) and neck pain ($p=0.015$, OR=10.9) were significantly associated with hyoid tenderness, more with these symptoms had hyoid tenderness than expected by chance. Findings on nasal laryngoscopy showed a significant association between hyoid tenderness and vocal cord nodules ($p<0.001$). Nasopharyngitis ($p=0.065$) and tender/tense neck muscles ($p=0.056$) were almost significantly associated with hyoid tenderness.

CONCLUSION

Hyoid tenderness has previously been reported as an early sign in acute epiglottitis. These results indicate hyoid bone tenderness may be a useful clinical indicator of various other laryngeal pathology or dysfunction.

PRESENTED

At the Royal Academy of Medicine in Ireland (RAMI) Meeting in Castlemartyr Resort, Cork in May 2012.

Paediatric Neck Lymphadenopathy at a Rural District General Hospital - A 10 Year Review

Ahmed, T.S., Blanshard, J., Spraggs, P. Department of Ear, Nose and Throat Surgery, Basingstoke and North Hampshire Hospital, Basingstoke, United Kingdom

INTRODUCTION

Paediatric neck swellings are common: most are self-limiting and due to reactive lymphadenopathy from upper respiratory tract infections. Malignancy is rare. Data on the scope of head and neck pathology in children and optimum management pathways is limited. This study aims to assess the spectrum of paediatric neck pathology referred with lymphadenopathy to a rural district general hospital over a ten year period and review the management strategies followed.

METHODOLOGY

A retrospective analysis of children aged 18 or below who underwent elective surgery for neck pathology at Basingstoke and North Hampshire Hospital between 2002 and 2012 was performed. Patients were identified from clinical coding and theatre databases. Demographical, procedural and hospital episode data were correlated with histopathological findings. Patients with underlying thyroglossal duct cysts were excluded from analysis.

RESULTS

The majority of children (58.3%) were referred directly by general practitioners. The mean duration of lymphadenopathy at the time of referral was 8.97 months (SD 12.3, range 1-48) and the mean interval from initial review to surgery was 63.6 days (SD 75.5, range 2-348). Most lesions were located in neck level V. Use of preoperative investigations was inconsistent. Chest radiography was requested for 11 children and was negative in all cases. A full blood count was performed on 18 children: an abnormal result had a positive predictive value for significant pathology of 50% with a sensitivity of 33% and specificity of 75%. ESR was requested in 15 cases and an abnormal result was found to have a positive predictive value of 60% with a sensitivity and specificity of 37.5% and 60% respectively. Serological tests were requested in two thirds of cases and were not found to be particularly helpful: the only positive results were to Epstein Barr virus (5 patients) indicating past infection. Fine needle aspiration biopsy (FNA) was performed in 6 cases: the mean age of these children was 15.5 and an abnormal result had a positive predictive value of 40%. Ultrasonography was performed in only 7 cases (29.2%) and was found to correlate well with the underlying pathology. Pre-operative trials of oral antibiotics were given in 7 cases (29.2%). Lymph node excision biopsy was the primary diagnostic procedure performed in the majority of cases (19 patients).

Malignancy was identified in 4 cases with a male predominance and mean age of 10.3 years (SD 3.3). All cases were referred to tertiary care. Inflammatory lymphadenopathy comprised a significant proportion of the cases including reactive lymphadenopathy (10), atypical mycobacterial infection (2), and other granulomatous conditions including tuberculosis (1).

CONCLUSIONS

This study illustrates the spectrum of paediatric neck pathology presenting at a district general hospital. Over 83% of treated children had benign neck masses, the vast majority from reactive lymphadenopathy. Timely excision biopsy should be performed so that diagnosis is not delayed in those with malignancy. The diagnostic challenge is to find clinical, serological and radiological evidence to reliably exclude a malignant diagnosis. High risk indicators include: supraclavicular or high neck locations; size greater than 3 cm; associated hepatosplenomegaly; continued enlargement without regression; abnormal chest radiography; an abnormal ESR. Ultrasonography in experienced hands is probably the single most useful investigation: lymph nodes with abnormal echogenicity, round rather than ovoid outlines and abnormal vascularity raise suspicions for underlying significant pathology.

PRESENTED

At the Royal Academy of Medicine in Ireland Otorhinolaryngology Section Summer Meeting in Dingle, Co. Kerry on May 4th, 2013 by Mr. Timothy Ahmed.

Caesarean Delivery and Subsequent Pregnancy Interval - A Systematic Review and Meta-Analysis

O'Neill, S.M.,[1] Kearney, P.M.,[2] Kenny, L.C.,[3] Henriksen, T.B.,[4] Lutomski, J.E.,[1] Greene, R.A.,[1] Khashan, A.S.[3]

National Perinatal Epidemiology Centre, Department of Obstetrics and Gynaecology, Cork University Maternity Hospital, Cork[1]

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The Irish Centre for Fetal and Neonatal Translational Research (INFANT), University College Cork[3]

Perinatal Epidemiology Research Unit, Department of Paediatrics, Aarhus University Hospital, Denmark[4]

ABSTRACT

Caesarean section rates have peaked worldwide; however, the effects on fertility are largely unknown. This systematic review aimed to compare subsequent sub-fertility (the time to next pregnancy or birth) among women with a Caesarean delivery to women with a vaginal delivery.

Systematic review of the literature including seven databases: CINAHL; the Cochrane Library; Embase; Medline; PubMed; SCOPUS and Web of Knowledge (1945 - October 2012), using detailed search strategies and reference list cross-checking. Cohort, case-control and cross-sectional studies were included. Two assessors reviewed titles, abstracts, and full articles using standardised data abstraction forms and assessed study quality.

A total of 11 articles were eligible for inclusion in the systematic review, of these 5 articles which adjusted for confounders were combined in a meta-analysis, totalling 750,407 women. Pooled estimates were obtained using random-effect models. Previous Caesarean delivery was associated with an increased risk of sub-fertility [pooled odds ratio (OR) 0.90; 95% CI 0.86, 0.93] (Figure 1).

Subgroup analyses by parity (primiparous, not primiparous); by publication date (pre-2000, post-2000); by length of follow-up (<10 years, >10 years); by indication for mode of delivery (specified, not specified) and by cohort size (<35,000, >35,000) were performed using Review Manager Version 5.1 software.

The meta-analysis shows an increased waiting time to next pregnancy and risk of sub-fertility among women with a previous Caesarean delivery. However, the findings are limited by poor epidemiological methods including variations in the definition of time to next pregnancy, lack of confounding adjustment, or details of the indication for Caesarean delivery. Further research of a more robust methodological quality to better explore any underlying causes of sub-fertility and maternal intent to delay childbearing is warranted.

PRESENTED

As poster presentations at;-

- The Society for Gynecologic Investigation 60th Annual Scientific Meeting, Orlando, Florida, USA from March 20th to 23rd, 2013 by Ms. Sinéad O'Neill.
- The Society for Social Medicine 57th Annual Meeting in Brighton, UK from September 11th to 13th, 2013 by Ms. Sinéad O'Neill (Awarded Best Poster).

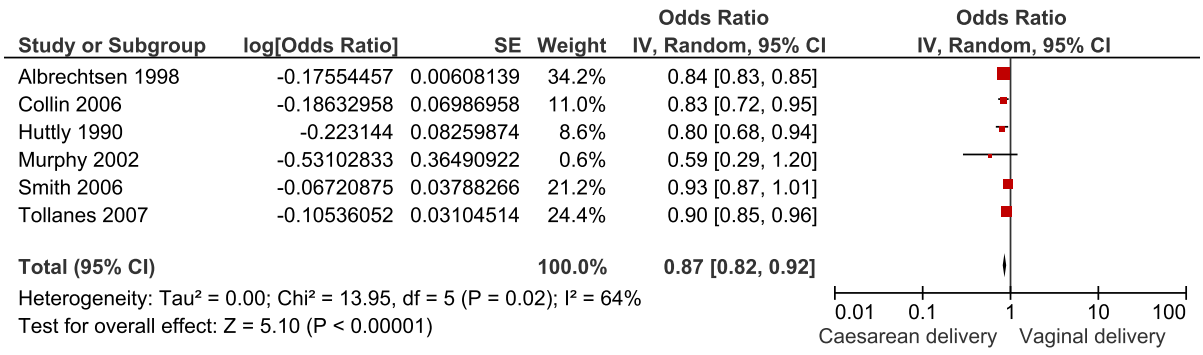
FUNDING

This work was conducted as part of the Irish Health Research Board (HRB) PhD Scholars Programme in Health Services Research, Grant No: PhD/2007/16 and funded by the National Perinatal Epidemiology Centre (NPEC) in Cork University Maternity Hospital, Wilton, Cork, Ireland.

SOURCE

O'Neill SM., et al. (2013) Caesarean delivery and subsequent pregnancy interval: a systematic review and meta-analysis. BMC Pregnancy and Childbirth 13(165): http://www.biomedcentral.com/1471-2393/13/165.

Figure 1- Fixed-Effect Model of Caesarean Delivery Compared to Vaginal Delivery and Subsequent Sub-Fertility from Five Published Studies Including 750,407 Women



Advanced Maternal Age and Adverse Pregnancy Outcome – Evidence from a Large Contemporary Cohort

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Biostatistics Group of the School of Community-Based Medicine, University of Manchester, United Kingdom[4]

The Maternal and Fetal Health Research Centre, University of Manchester, United Kingdom[5]

ABSTRACT

Recent decades have shown an increase in maternal age at childbirth in most high-income countries. Advanced maternal age has been associated with several adverse maternal and perinatal outcomes, and although there are many studies to date, data from population-based cohorts that control for important demographic factors known to affect pregnancy outcome are limited. We conducted a population-based cohort study using data on all singleton births during 2004-2008 from the North Western Perinatal Survey (NWPS), in the University of Manchester, UK. We assessed pregnancy outcomes in women aged 30-34, 35-39 and >40 years with women aged 20–29 years using log-linear binomial regression. Models were adjusted for parity, ethnicity, social deprivation score and body mass index. The final study cohort consisted of 215,344 births; 122,307 mothers (54.19%) were aged 20-29 years, 62,371(27.63%) were aged 30-34 years, 33,966 (15.05%) were aged 35-39 years and 7,066 (3.13%) were aged >40 years. Women aged 40+ at delivery were at increased risk of stillbirth (RR=1.83, [95% CI 1.37–2.43]), pre-term (RR=1.25, [95% CI:1.14–1.36]) and very pre-term birth (RR=1.29, [95% CI:1.08–1.55]), Macrosomia (RR=1.31, [95% CI:1.12–1.54]), extremely large for gestational age (RR=1.40, [95% CI:1.25–1.58]) and Caesarean delivery (RR=1.83, [95% CI:1.77–1.90]). Advanced maternal age is associated with a range of adverse pregnancy outcomes. These risks are independent of parity and remain after adjusting for the ameliorating effects of higher socio-economic status. The data from this large contemporary cohort will be of interest to healthcare providers and women and will facilitate evidence-based counselling of older expectant mothers.

PRESENTED

As a poster presentation at the Society for Gynecologic Investigation 59th Annual Scientific Meeting in San Diego, from March 22nd to 24th, 2012 by Ms. Sinéad O'Neill.

FUNDING

This work was conducted as part of the Irish Health Research Board (HRB) PhD Scholars Programme in Health Services Research, Grant No: PhD/2007/16 and funded by the National Perinatal Epidemiology Centre (NPEC) in Cork University Maternity Hospital, Wilton, Cork, Ireland.

SOURCE

Kenny LC. et al. (2013) Advanced Maternal Age and Adverse Pregnancy Outcome: Evidence from a Large Contemporary Cohort. PLoS ONE 8(2):e56583. doi: 10.1371/journal.pone.0056583

Management of Major Obstetric Haemorrhage in Ireland 2011

Lutomski, J., Manning, E., O'Connor, L., Corcoran, P., Greene, R. on behalf of the Severe Maternal Morbidity Advisory Group, National Perinatal Epidemiology Centre, Department of Obstetrics and Gynaecology, University College Cork, 5th Floor, Cork University Maternity Hospital, Cork

ABSTRACT

The National Perinatal Epidemiology Centre (NPEC) carried out the first national clinical audit of severe maternal morbidity in Ireland based on cases that occurred in 2011 in 19 of the country's 20 maternity units. The audit identified major obstetric haemorrhage (MOH) as the most common type of severe morbidity.

As part of the audit, participating maternity units were asked to complete a detailed assessment form in cases involving MOH (defined as blood loss >2,500ml, transfusion of >5 units of blood or documented treatment for coagulopathy).

A total of 159 cases of MOH were reported. Uterine atony was a reported cause in almost half (42.8%) of all cases of MOH. The next most common causes were retained placental membranes (17.0%), placenta praevia (12.6%), morbidly adherent placenta (10.7%) and bleeding from uterine incision (10.7%).

For most cases (63.9%), the onset of haemorrhage occurred in the postpartum period (63.9%), one in five (20.0%) occurred intrapartum, 12.9% occurred antepartum and 3.2% occurred in early pregnancy (less than 20 weeks gestation). A consultant obstetrician and an anaesthetic consultant were present in approximately 70% of cases of MOH. An obstetric registrar and an anaesthetic registrar were present in at least 95% of cases and approximately 90% of cases were managed in the presence of a senior midwife and theatre staff.

Use of a prophylactic uterotonic agent was reported for over 90% of the women (91.4%). More than one agent was received by 27.6% of the women. The most common haemostatic surgical procedures for women with MOH were intra-uterine balloon tamponade (29.6%), manual removal of placenta/retained tissue (22.6%), repair of vaginal/cervical lacerations (20.8%), intramyometrial-carboprost (15.7%) and hysterectomy (13.8%). Almost all of the women (93.5%) were reported as having received a blood transfusion. Most, (58.9%), had an arterial line and 19.5% had a central venous pressure line.

Quality of care, self-assessed by the maternity units, was reported for 71.1% of the cases of MOH. These viewpoints were either based on consensus at a risk management meeting (35.2%), clinical case presentation (24.1%), informal clinical discussion (22.2%) or personal opinion (18.5%).The care given was deemed appropriate in the vast majority of cases (85.8%). For one in ten cases (9.7%), the unit reported that lessons could be learned and for 4.4% of cases (n=5) it was reported that minor care issues occurred where different management may have altered the outcome.

A time delay in access to theatre was reported for only one case of MOH; the approximate wait time was 30 minutes. Nearly all units (94.7%) stated that their unit has a protocol for the management of MOH, and in most cases (94.8%), staff reacted according to its unit's protocol. Although the use of obstetric early warning charts was reported in less than half of the cases, for virtually all of the women there was regular monitoring of blood pressure, pulse and urine output, use of a pulse oximeter and a Foley catheter in-situ.

Seven of the reporting maternity units described in detail examples of both good practice and learning points gleaned in assessment of individual MOH cases. The recurrent themes described in these examples are summarised in Table 1.

Table 1 - Positive Practices and Learning Points in the Management of MOH Cases, 2011

Positive Practices
• Early detection of high risk cases and documented management plan for such cases
• Multidisciplinary approach with good interdisciplinary communication
• Early consultant and senior staff involvement
• Counselling support for women and partners following a severe maternal morbidity
Learning Points
• Absence of documented management plan for some high risk cases
• Lack of consideration of interventional radiology in some high risk cases
• Early recognition of post-partum haemorrhage and prompt treatment
• Accurate estimation and recording of blood loss
• Use of a specific proforma to document management during a MOH event
• The importance of clear communication between the obstetric and haematology teams
• Familiarity of all staff with the local protocol for management of MOH
• The essential need for on-going multidisciplinary skills and drills programmes
• Dissemination of key learning points from an adverse event through structured forums

CONCLUSION

The examples of good practice and learning points gleaned in assessment of individual MOH cases may be used on a national level to improve clinical care.

SOURCE

National Perinatal Epidemiology Centre. Severe Maternal Morbidity Report 2011. Cork: NPEC, March 2013.

Acknowledgements

The Severe Maternal Morbidity Advisory Group also includes:

Dr. Bridgette Byrne, Coombe Women & Infants University Hospital; Ms. Deirdre Daly, Trinity College Dublin; Professor Declan Devane, National University of Ireland, Galway; Professor Michael Geary, The Rotunda Hospital; Dr. Miriam Harnett, Cork University Hospital; Ms. Ita Kinsella, Midland Regional Hospital, Portlaoise; Ms. Janet Murphy, Waterford Regional Maternity Hospital; Dr. Ray O'Sullivan, St. Luke's Hospital, Kilkenny.

Severe Maternal Morbidity in Ireland 2011

Manning, E., Lutomski, J., O'Connor, L., Corcoran, P., Greene, R. on behalf of the Severe Maternal Morbidity Advisory Group, National Perinatal Epidemiology Centre, Department of Obstetrics and Gynaecology, University College Cork, 5th Floor, Cork University Maternity Hospital, Cork

ABSTRACT

Severe maternal morbidity incidence is an important indicator of quality of obstetric care. For this reason, in 2010, the National Perinatal Epidemiology Centre (NPEC) established a multidisciplinary specialist Maternal Morbidity Group to guide a confidential clinical audit of severe maternal morbidity in Ireland. This is the first national audit to be carried out in Ireland and reports on severe maternal morbidity cases that occurred in 2011 in 19 of the country's 20 maternity units.

In total, 67,806 maternities were reported from the 19 participating maternity units, representing 93% of maternities in Ireland for the calendar year 2011. Severe maternal morbidity was classified as the presence of one or more of 15 categories of maternal morbidity including: major obstetric haemorrhage (MOH), eclampsia, renal/liver dysfunction, cardiac arrest, pulmonary oedema, acute respiratory dysfunction, coma, cerebrovascular accident, status epilepticus, septicaemic shock, anaesthetic complications, pulmonary embolism, peripartum hysterectomy, admission to intensive care and interventional radiology. Major obstetric haemorrhage was defined as an estimated blood loss of ≥2,500ml, and/or a transfusion of ≥5 units of blood and/or documented treatment for coagulopathy. The methodology for case ascertainment and morbidity inclusion criteria, adapted by the NPEC, was based on the Scottish Confidential Audit of Severe Maternal Morbidity (SCASMM) and was used with the kind permission of the Reproductive Health Programme of the National Health Service (NHS) Quality Improvement Scotland.

Overall, 260 women were reported as experiencing at least one severe maternal morbidity, which translated as a national morbidity rate of 3.8 cases per 1,000 maternities or 1 in 263 maternities. The majority of the women (57.7%) experienced one category of severe morbidity, one third (32.3%) experienced two categories of severe morbidity and 10.0% experienced three or four. There was an over-representation of ethnic minorities among the women who experienced severe maternal morbidity. The perinatal mortality rate among women experiencing severe maternal morbidity was 32.6 deaths per 1,000 births, five times higher than the national rate, estimated recently at 6.6 per 1,000 births.[1]

The incidence of each category of severe maternal morbidity is detailed in Table 1. Major obstetric haemorrhage (MOH) was the most frequent cause of severe maternal morbidity, followed by Intensive Care Unit (ICU) admission, renal/liver dysfunction and peripartum hysterectomy. In all cases where a hysterectomy was ultimately required, the mode of delivery was Caesarean section. The likelihood of peripartum hysterectomy in the event of a MOH was increased when there was a history of previous Caesarean section, placenta praevia and/or morbidly adherent placenta. One quarter of the 111 ICU admissions (25.2%) reported in the audit were for reasons other than maternal morbidity which may reflect resource issues in cases of mothers requiring intensive monitoring.

Table 2: Frequency and Incidence of Severe Maternal Morbidity, 2011

Category of morbidity	n	(% of women diagnosed)	Rate per 1,000 maternities (95% CI)
Major obstetric haemorrhage	159	(61.2%)	2.3 (1.9-2.7)
ICU/coronary care unit admission	111	(42.7%)	1.6 (1.3-1.9)
Renal or liver dysfunction	26	(10.0%)	0.4 (0.2-0.5)
Peripartum hysterectomy	23	(8.8%)	0.3 (0.1-0.3)
Pulmonary embolism	12	(4.6%)	0.2 (0.1-0.3)
Eclampsia	12	(4.6%)	0.2 (0.1-0.3)
Pulmonary oedema	8	(3.1%)	0.1 (0.04-0.20)
Cardiac arrest	7	(2.7%)	0.1 (0.04-0.20)
Anaesthetic problem	7	(2.7%)	0.1 (0.04-0.20)
Cerebrovascular event	6	(2.3%)	0.09 (0.02-0.16)
Acute respiratory dysfunction	5	(1.9%)	0.07 (0.01-0.11)
Septicaemic shock	4	(1.5%)	0.06 (0.00-0.10)
Status epilepticus	3	(1.2%)	0.04 (0.00-0.09)
Coma	0	–	–
Interventional radiology			
Planned	8	(3.1%)	0.1 (0.04-0.20)
Unplanned	8	(3.1%)	0.1 (0.04-0.20)
Total women diagnosed	**260**		**3.8 (3.4-4.3)**

The incidence of severe maternal morbidity in Ireland, both in terms of the overall incidence and of specific categories, is similar or lower than comparable figures reported internationally.[2-4] The audit identified the quality of care in Irish maternity services but also the commitment of those working in the services to the assessment of the care they provide.

REFERENCES

Available on request.

SOURCE

National Perinatal Epidemiology Centre. Severe Maternal Morbidity Report 2011. Cork: NPEC, March 2013.

Acknowledgements

The Severe Maternal Morbidity Advisory Group also includes:
Dr. Bridgette Byrne, Coombe Women & Infants University Hospital; Ms. Deirdre Daly, Trinity College Dublin; Professor Declan Devane, National University of Ireland, Galway; Professor Michael Geary, The Rotunda Hospital; Dr. Miriam Harnett, Cork University Hospital; Ms. Ita Kinsella, Midland Regional Hospital, Portlaoise; Ms. Janet Murphy, Waterford Regional Maternity Hospital; Dr. Ray O'Sullivan, St. Luke's Hospital, Kilkenny.

The Provision of Parenteral Nutrition Pre and Post Implementation of a Parenteral Nutrition Policy

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INTRODUCTION

Parenteral Nutrition (PN) is indicated when oral or enteral feeding is contraindicated and it is widely used in the hospital setting to prevent or treat malnutrition. The aim of this study was to examine PN practices pre and post implementation of a local PN policy.

METHODOLOGY

The dietetic department holds a database of all patients referred for nutritional assessment for PN. Data for the purpose of this audit were gathered by medical chart retrieval and dietetic record card examination on adult patients that received PN from January to December 2009 prior to the implementation of a PN policy. The PN policy was introduced hospital-wide at the end of 2009 and is accessible via the hospital intranet. The audit was repeated on patients who received PN from January to December 2010 and we assessed whether practices met the new policy. An audit tool was developed based on clinical judgement specifically appropriate to PN use locally. This facilitated extraction of relevant data. Data analyses were conducted using Vasserstats.net for statistical computation.

RESULTS

There was a wide range of primary diagnoses referred for PN in 2009 and 2010 including bowel cancer, acute pancreatitis, perforated duodenal ulcers, perforated sigmoid colon, stomach cancer, ovarian cancer and head and neck cancers. Over the two years, 75% of patients met international guidelines (NICE/ESPEN)[1,2] for indications for PN. After implementation of a hospital PN policy, there was a significant improvement in correct prescribing of PN in the drug kardex (p=0.012). Identification of refeeding syndrome (p=1.00), prescribing pabrinex (p=0.68) and the correction of electrolyte abnormalities (p=0.66), all improved although not significantly. The number of PN feeding days per year has been significantly decreasing in the hospital (p=0.043).

CONCLUSION

Overall, there was an improvement in PN practices after implementation of a hospital PN policy. The Department of Nutrition and Dietetics aim to continue to educate and increase awareness amongst staff on the appropriate use of PN and promote the presence of the PN policy on the hospital intranet site.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Irish Society for Clinical Nutrition and Metabolism (IRSPEN) Conference in Dublin on March 5th and 6th, 2013.

Table 1 - Parenteral Nutrition Practices in 2009 and 2010

Clinical variables of patients on parenteral nutrition	2009(n=11)	2010 (n=12)	*p-value
Male	6 (55%)	4 (33%)	N/A
Female	5 (45%)	8 (66%)	N/A
Duration on PN (days)(median, IQR)	10 (2-27)	10.5 (3-14)	N/A
BMI calculated by dietitian	2 (18%)	6 (50%)	0.193
Indications for PN meeting international guidelines/local policy	9 (81%)	9 (75%)	1.00
Total number of feeding days (% of days per year)	170 (47%)	142 (39%)	0.043
Correct PN prescription written in drug kardex	3 (27%)	10 (83.3%)	0.012
Correct amount of PN administered by staff (mls of PN over 24 hours) as recommended by Dietitian (assessed over 1st five days administration)	3 (27.3)	2 (16.6)	0.640
Refeeding syndrome risk identified	9 (81%)	10 (83.3%)	1.00
Pabrinex prescribed correctly	6 (66.6%)	8 (80%)	0.68
Electrolyte abnormalities appropriately corrected	3 (30%)	5 (42%)	0.66

BMI=body mass index *P-value obtained using Fishers' Exact Probability Test

| Back to Contents |

Individualised Cognitive Therapy through Stimulation and Individualised Sonas Individual Multi-Sensory Session with Long Stay Psychiatry of Later Life subjects who have Cognitive Impairment

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O'Cuill, M.,[2]
Kelly, G.,[2]
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INTRODUCTION

A recent randomised controlled trial on Cognitive Stimulation Therapy identified the need to evaluate its long-term benefits for people with cognitive impairment i.e. dementia.

OBJECTIVE

Previous studies have aimed to evaluate its benefits in a group setting. This study aims to evaluate the benefit of and the sustainability of individual cognitive intervention on people with cognitive impairment.

METHODOLOGY

The method employed to carry out this research was a mixed case analysis comparing two groups; Sonas Individual Multi-Sensory Session (SIMS) and Individualised Cognitive Therapy through stimulation. A total of 10 participants were included and randomly assigned to an intervention group. The intervention comprised of 14 sessions. Assessment was carried out pre and post intervention with outcome measures used after each individual session. A 6 month follow up was conducted to explore sustainability.

RESULTS

Individualised Cognitive Stimulation Therapy was found to be more effective than SIMS. However, both were identified to be of benefit cognitively as determined by scores on the Standardised Mini Mental State Examination (SMMSE) which had either been maintained or improved in all participants. Similarly other assessments and outcome measures used in the study maintained or improved their score with no cognitive decline detected.

CONCLUSION

The findings lend support that SIMS and Individualised Cognitive Therapy through stimulation have beneficial and sustainable effects as an individual intervention.

PRESENTED

As a poster presentation at;

- The Association of Occupational Therapists Ireland (AOTI) Conference in Mullingar, in April 2013 (as an interactive poster).
- The 10th Conference of Neuropsychological Rehabilitation in Maastricht, in July 2013.

An Investigation into the Use of a Touch-Sensitive Cognitive Testing Device in Hospitalised Elderly Patients

O'Sullivan, R., Leonard, M., Gohery, E., Cronin, C., Mulloy, E., Reynolds, P., Meaney, A.M., O'Connor, M., Meagher, J., Exton, C., Dunne, C., Cullen, W., Meagher, D.
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HSE-West: University Hospital Limerick, St. Camillus' Hospital and St. John's Hospitals, Limerick

INTRODUCTION

Delirium is a complex neuropsychiatric syndrome that occurs in one in five hospitalised patients. It is independently associated with a range of adverse outcomes including prolonged hospitalisation and increased mortality but is frequently missed or diagnosed late. Tools that can allow systematic screening and diagnosis are relatively lacking such that the application of computer-assisted technologies might allow for improved detection and treatment.

METHODOLOGY

We examined the application of a computerised touch-sensitive tablet-based device (the cogometer) in hospitalised patients aged 65 and over in three centres in Limerick (St. John's, University Hospital Limerick and St. Camillus'). Specifically we examined the concordance between the cogometer-based assessments with traditional bedside pen and paper approaches to cognitive testing as well as the acceptability of using computer-assisted approaches to assessment for patients and staff.

RESULTS

A total of 32 patients participated in the study (mean age 79.1 ± 7.4 years; 13 males and 19 females). Fourteen participants had evidence of prior cognitive difficulties and/or a documented history of dementia. Seven patients had incident delirium.

Over 70% of the participants had never used a computer. Only three had used a touch sensitive device previously. Sixteen reported owning a mobile phone. For those who did use computers, the principal reasons were for typing documents, using email and internet searching and playing games. None had used the computer for shopping or financial transactions.

Most patients scored higher on the pen and paper testing compared with the cogometer for tests of attention, working memory and comprehension. This pattern was evident regardless of cognitive or delirium status, or the order in which the assessments were delivered.

Eleven Patients expressed a preference for the pen and paper-based testing procedures, while 7 preferred the computer and 8 rated the two approaches as similar. Computerised approaches were preferred by patients who were actively using computers in their everyday personal lives.

CONCLUSIONS

The success of the cogometer is dependent on its acceptability to its target population which includes the elderly, cognitively impaired, delirious, critically ill and those who lack experience with technological devices. The use of computer-assisted approaches to assessing cognition were generally acceptable to patients. However, we found that the cogometer in its current form lacks precision that may relate to the accuracy of touch-sensitive technology when used by older or frail persons. This can be improved by incorporating developing technology.

PRESENTED

This research has been presented by Professor David Meagher at the following meetings:

1. Delirium: New Insights into an Ancient Syndrome. Founders Day, St. Patrick's University Hospital, Dublin, October 2012.

2. Delirium Detection: New Approaches Through Systems Analysis: Rehabilitation and Aged Care Unit, Ancelle Hospital, Cremona, Italy, October 2012.

3. The Footprint of Delirium in a General Hospital: Point Prevalence of Delirium and Subsyndromal Delirium. American Delirium Society Annual Meeting, Indianapolis, Indiana, June 2012.

FUNDING

This research has received funding from the following sources:

1. ULGEMS Strategic Research Fund

2. HRB Project Grant

Assessing Smoking Cessation Practices in the Secondary Prevention of Cardiovascular Disease in a Rural General Practice

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INTRODUCTION

A Cochrane review of 31,000 smokers showed that brief intervention by medical practitioners has been shown to increase quit rates by 66%.[1] There is clear evidence that patients with coronary heart disease (CHD) and peripheral arterial disease (PAD) who stop smoking live longer.[2,3] There is virtually no evidence for smoking cessation in the secondary prevention of stroke or transient ischaemic attack (TIA), however. The Royal Australian College of General Practitioners' (RACGP) guidelines state that instituting a system designed to identify and document tobacco use almost doubles the rate of clinician intervention and results in higher rates of cessation.[4]

OBJECTIVE

Therefore, we aimed to develop a standardised smoking cessation policy in our practice. In order to achieve this, we first needed to audit our current smoking cessation practices as per the recommended guidelines developed by the RACGP and the National Institute for Health and Clinical Excellence (NICE).[4, 5]

METHODOLOGY

A retrospective audit was carried out from September 2010 to August 2011. A search for all patients with a history of CHD, cerebrovascular accident, TIA, or PAD including carotid and aortic disease was undertaken using Helix Practice Manager, the computer software package used in the practice. Visitors to the practice, deceased patients and patients under 15 years of age were excluded from the audit. As per the RACGP[4] and NICE[5] guidelines, each file was searched to determine the following outcomes for this twelve month period:

- the percentage of patients in this high risk subgroup who had their smoking status documented
- the percentage of known smokers who had brief intervention
- the percentage of smokers who were offered pharmacotherapy as part of brief intervention, including any type of nicotine replacement therapy (NRT), varenicline or bupropion

RESULTS

- 116 patients were included; the diagnoses are shown in Table 1
- 16% (n=18) had their smoking status documented
- 10.3% (n=12) of patients included in the audit were smokers
- 6 of the 12 known smokers received smoking cessation advice
- 4 of the 12 known smokers were offered pharmacotherapy; 1 received NRT, 2 received varenicline and 1 patient received both NRT and varenicline in the 12 month period.

Table 1 - Diagnoses of 116 Patients Included in Audit

Diagnosis	n (%)
Coronary heart disease	82 (71%)
Cerebrovascular disease or transient ischaemic attack	36 (31%)
Peripheral arterial disease	21(18%)

CONCLUSION

As the desired standard for documentation of smoking status and brief intervention in known smokers is 100%, our practice falls below the NICE targets.[6] The audit highlights the need for an agreed practice policy on smoking cessation, which was drawn up at a subsequent practice meeting in December 2011. The policy includes:

1. Consistent documentation of smoking status in 'vital signs' within patients' files. The number of cigarettes smoked per day and number of years smoking is recorded.
2. Each doctor and nurse in the practice is to complete the 'Promoting Smoking Cessation' online course run by the Irish College of General Practitioners (ICGP).
3. A template for Helix Practice Manager was created which serves as a reference for a smoking cessation consultation.
4. Posters and patient information leaflets are placed in waiting and consultation rooms to encourage smoking cessation.

This practice policy should increase the number of brief interventions in smokers in the practice. From a broader perspective, it highlights the need for further incentives, similar to the quality and outcomes frameworks used in the UK, for primary care professionals to encourage smoking cessation.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Irish College of General Practitioners (ICGP) Limerick Faculty Christmas Meeting on December 21st, 2011.

The Challenges of Diagnosing Community Acquired Pneumonia in General Practice

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INTRODUCTION

The majority of cases of community acquired pneumonia (CAP) are managed in the community, although most of the published studies report on hospital in-patients. Optimum management relies on accurate diagnosis. British Thoracic Society (BTS) Guidelines (2009) provide diagnostic criteria that do not rely on CXR.

OBJECTIVE

The overall aim of this project was to collect data regarding CAP in Irish general practice. This abstract focuses on the specific challenges of identifying CAP cases in general practice, adhering strictly to the BTS diagnostic criteria.

METHODOLOGY

Following ethical approval, prospective data collection was undertaken over one year to document CAP symptoms and the incidence of CAP as it presents to general practice in Ireland. Data analysis was carried out using the PASW statistical package.

RESULTS

Interim results presented here are based on the clinical notes recorded at the initial consultation from 14 practices whose profile was generally representative of Irish general practice. In all, 209 cases were returned, ranging from 4-50 per practice. Strictly applying the BTS definition resulted in a definitive diagnosis in 29 cases (14%) with a further 108 cases (52%) likely to be CAP. Inclusion of known CXR results increases definite cases to 29%.

CONCLUSIONS

Our findings concur with international evidence on the difficulties of accurate case definition of CAP in the community. This has obvious implications for the application of appropriate clinical care guidelines.

PRESENTED

- As an oral presentation at the Irish College of General Practitioners (ICGP) Research and Audit Conference in Kilkenny on June 22nd, 2013.
- As a poster presentation at the European General Practice Research Network (EGPRN) Autumn Conference in Malta from October 17th to 20th, 2013.

FUNDING

This research has received funding from the Pfizer Investigator Initiated Grant.

An Evidence-Based Assessment of Primary Care Needs in an Economically Deprived Urban Community

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Kileely General Practice and Graduate Entry Medical School, University of Limerick[2]

ABSTRACT

As healthcare and longevity improve and fertility rates decline, we see a demographic shift towards a predominantly elderly population. Because ageing brings its own physiological changes and complications, the need arises for practical and feasible approaches in providing the healthcare required by this population. With government strategy promoting enhanced community-based healthcare, the development of primary care infrastructure should reflect population needs. The objective of this research is to describe the profile of older patients attending a general practice in an under-privileged urban setting, specifically, initial medical presentation, referrals for secondary care, and the medicines prescribed to them. To thereby enhance our understanding of the primary care requirements of elderly people in this setting.

The anonymised records of an older patient cohort (n = 427, age >55 years) that presented to a General Practice over a 12-month period were retrospectively analysed to determine the nature of the clinical encounters, subsequent referral patterns and drugs prescribed.

There were 3,448 discrete clinical encounters (mean = 8.0 per patient), predominantly for respiratory conditions, leading to 401 issued scripts and to 216 patients being referred for secondary care. Women were referred more often than men. There was a notable need for specialised dietary advice and drug prescribing was often complex.

This study provides evidence of primary care needs in an economically deprived area of an Irish city highlighting the complexity of associated prescribing and secondary care referrals in this setting.

FUNDING

This study was supported by a research award from the Limerick Regeneration Agencies.

SOURCE

Irish Journal of Medical Sciences 2013 Sep;182(3):457-61. doi: 10.1007/s11845-013-0913-2. Epub 2013 Jan 30.

The Relationship between Facial Emotion Recognition Ability and Autism Spectrum Traits - An Investigation in a Sample of Adolescent Males with Autism Spectrum Conditions

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INTRODUCTION

A highly important part of human social interaction is the ability to recognise emotion in others. Impairments in social functioning can severely impact on individual well-being and represent a significant source of disability for those with Autism Spectrum Conditions (ASC), even those at the higher-functioning end of the spectrum. Deficits in the ability to recognise facial expression of emotion have been demonstrated in studies of individuals with ASC.[1] However, discrepant findings have limited the conclusions that can be drawn from the research, and few studies have related facial emotion recognition ability to measures of social impairment. Previous research by Law Smith et al. (2010)[2] has demonstrated subtle deficits in recognition of certain basic emotional expressions in adolescents with high-functioning ASC compared to typically developing controls, using a task that uses differing intensities of facial expressions (Emotion Recognition Task; ERT).[3]

OBJECTIVE

This study built on previous research by Law Smith et al. (2010), with the aim of investigating whether the level of social impairment in a clinical sample of 21 adolescents with ASC (as measured by Social Responsiveness Scale scores)[4] related to the degree of deficit in their ability to recognise basic facial expressions on the Emotion Recognition Task (ERT).[3]

METHODOLOGY

The clinical sample consisted of 21 males aged 12-19 years old (mean age=15.33, SD=2.20) with a psychiatrist's diagnosis of High-Functioning Autism (HFA) or Asperger's syndrome (AS) according to the DSM-IV diagnostic criteria. This diagnosis was confirmed by administering the Autism Diagnostic Observation Schedule (ADOS) and the Autism Diagnostic Interview-Revised (ADI-R). All cases met ADI criteria and ADOS criteria for Autism Spectrum Disorder and had a performance IQ >80, measured by the Leiter International Performance Scale-Revised (mean IQ=100.67, SD=12.21). Participants scored within the age appropriate norms on the measure of verbal ability using the Peabody Picture Vocabulary Test (PPVT-III) (Mean standard PPVT score=107.71, SD=15.81).

The Emotion Recognition Task (ERT) was used to measure facial emotion recognition ability of the 6 basic expressions of emotion (anger, disgust, fear, happiness, sadness, and surprise). The ERT is a computer-generated program showing 'video clips' of varying intensities of facial expressions of emotion. Participants saw, in a random order, 24 video clips running from neutral to 20% intensity of emotion expression, followed by the 24 clips from neutral to 30%, and continued in blocks of increments of 10% until they reached the final sequence of clips in which the neutral face changed into a full-blown expression (100%). After each trial, a forced choice between one of six emotional expression labels displayed on the screen was required. The Social Responsiveness Scale (SRS) was used as a measure of severity of autistic symptomology. The SRS is a 65-item parent-based rating scale which provides an overall summary score that was used here to relate to ERT performance.

Ethical approval was granted by HSE Linn DaraChild and Adolescent Psychiatry. Subjects were recruited through the Autism Genetics Program of the Neuropsychiatric Genetics Research Group, Trinity College Dublin. SRS questionnaires were completed by mothers of the participants with ASC. Parents were given these questionnaires at the time of ERT testing, and requested to return by post. Out of the 21 participants, all but 2 of the parents returned the questionnaires; resulting in a sample size of n=19 for the analyses.

RESULTS

Parametric Analysis of Variance (ANOVA) was used to analyse the data. Overall, there was a significant main effect of autistic symptom severity on facial emotion recognition ability [$F_{1,16}$= 7.12, p=0.017]; with the High SRS group (high ASC severity) showing lower ERT accuracy than the Low SRS group. There was a trend towards a significant 2-way interaction between emotion and group [$F_{5,80}$=2.02, p=0.086]. This interaction was a result of the High SRS group scoring significantly lower in terms of accuracy than the Low SRS group on disgust [t(17)=2.34, p=0.032], whereas no significant differences were observed for the other 5 emotions [all t(17)<1.39, all p>0.18].

Post-hoc analysis at each level of intensity revealed that the High SRS group were significantly less accurate than the Low SRS group on disgust recognition at Low (20-40%) intensity [t(17)=2.92, p=0.01], and trends towards significance for Medium (50-70%) [t(17)=2.01, p=0.06], and High (80-100%) intensity [t(17)=1.83, p=0.085].

CONCLUSIONS

Social impairment (as measured by the parent-report SRS) was found to relate negatively to recognition accuracy for the 'disgust' emotion, especially at the most subtle level of intensity expression (low intensity). Those individuals with higher social impairment were less accurate at recognizing the facial expression of 'disgust', than those with lower levels of social impairment.These results demonstrate that facial emotion recognition is a social cognition ability that is related to autistic traits.

The results highlight the importance of using emotion recognition stimuli which incorporates differing levels of intensity for assessing subtle deficits in social cognition in individuals with Autism Spectrum Conditions. In addition, early detection of subtle deficits is important for targeting facial emotion recognition difficulties specifically as part of strategic intervention to improve social impairment.

REFERENCES

Available on request.

FUNDING

This research was funded by grants from the Health Research Board and Autism Speaks.

An Evaluation of Met and Unmet Needs, Carer Burden and Barriers to Accessing Services amongst Family Carers of People with Dementia - A Qualitative Study

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INTRODUCTION

The increasing prevalence of dementia means that many people are taking on a caring role for someone with dementia, often on a full time basis. Few studies have explored the needs of carers in Ireland, and in particular there is little literature on the barriers to accessing services.

METHODOLOGY

In-depth semi-structured interviews were conducted with six family care givers of people with moderate and advanced dementia who were identified through snow-ball sampling. A framework analysis, with stages of familiarization, identification of thematic framework, indexing, mapping, and mapping and interpretation, was undertaken.

RESULTS

Five major themes emerged from the textual data: information, money, limited service availability, support and transport. The primary reported barrier to service use among carers was the lack of information received at time of initial diagnosis. Once diagnosed, adequate support is not seen as available. Carers reported isolation and uncertainty about what was available to support them. Financial burden resulted from the family member's dementia, and resulted in carer stress and in most cases limited access to services.

CONCLUSIONS

Information emerged as the key theme. Carers want information and it is necessary to have information, such as a diagnosis, in order to access services. Consideration needs to be given to approaches to the diagnosis and disclosure of the diagnosis and the signposting of services.

PRESENTED

As a poster presentation at the Association of University Departments of General Practice (AUDGPI), University of Limerick on March 8th, 2013.

Antidepressants, Cognitive-Behaviour Therapy and Combination Treatment for Depressed Patients - A Meta-Analysis

Wallace, J., Byrne, C., Nwosu, B., Clarke, M. Roscommon County Hospital, Roscommon

INTRODUCTION

The comparative effectiveness of antidepressant medication and cognitive-behaviour therapy for the acute treatment of depression is contentious.

OBJECTIVE

To compare the acute outcomes of antidepressant medication, cognitive-behaviour therapy (CBT), and the combination of the two, in adult, depressed patients.

METHODOLOGY

Sixteen electronic databases together with reference lists were searched for randomised and other clinical trials that compared CBT, antidepressants, or their combination. Method of meta-analysis: Random-effects and fixed-effect models used. Studies were considered for inclusion in the review if they met the following criteria:

1) They were randomised trials or clinical trials; 2) Participants had depression as diagnosed by operationalized criteria; 3) Participants could be male or female, and aged between 16 and 65; 4) They did not include comorbid physical and psychiatric conditions; 5) They compared the outcomes of antidepressants versus CBT; 6) They compared the outcomes of either single therapy versus their combination; 7) The single active treatment needed to be one of the treatments of the combination; 8) They used the Beck Depression Inventory (BDI) and Hamilton Depression Rating Scale (HDRS) as primary outcome measures and presented usable data.

RESULTS

In the comparison between CBT and antidepressants, 8 studies met inclusion criteria. Five studies met the inclusion criteria for the second comparison between single therapy and combination therapy. Results were in line with most reviews in the area. Using a fixed-effect model, the bulk of the evidence favours CBT over antidepressants and the difference on 3 of the 4 outcome measures is statistically significant. Using a random-effects model, the evidence favours CBT on 3 outcome measures, though the difference is statistically significant on just one measure.

In the combination versus monotherapy comparison, using both fixed- and random-effects models, no statistically significant difference was found between combination therapy and CBT. However, when employing both models, combination treatment appeared significantly more effective than antidepressant medication on most outcome measures. In the antidepressant and CBT comparison, effect sizes favoured CBT over antidepressants with a significant advantage for CBT on some outcome measures. Combined treatment appeared more effective than antidepressants. However, combined treatment did not emerge more effective than CBT.

CONCLUSIONS

Antidepressants may not be considered more efficacious than CBT for the acute treatment of depressed patients nor can combination therapy be regarded as more effective than CBT alone.

PRESENTED

- At the World Psychiatric Association Conference in Athens from November 29th to December 2nd, 2012.
- At the 7th International Conference on Sociology in Athens from May 6th to 9th, 2013.
- At the 9th Congress of the International Neuropsychiatric Association in Chicago, USA from September 25th to 27th, 2013 as a Poster Presentation.

Non-Fatal Self-Harm in Ireland - Findings from the National Registry of Deliberate Self-Harm, Annual Report 2012

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ABSTRACT

The eleventh annual report from the National Registry of Deliberate Self-Harm is based on data collected on persons presenting to all 35 hospital emergency departments as a result of self-harm in 2012 in the Republic of Ireland. In 2012, the Registry recorded 12,010 presentations to hospital due to deliberate self-harm nationally, involving 9,483 individuals. Taking the population into account, the age-standardised rate of individuals presenting to hospital following deliberate self-harm in 2012 was 211 per 100,000, a 2% decrease on the rate in 2011. However, the rate in 2012 was still 12% higher than that in 2007. In 2012, the national male rate of deliberate self-harm was 195 per 100,000, and the female rate of deliberate self-harm in 2012 was 228 per 100,000. Despite the overall decrease in 2012, the male rate has increased by 20% since 2007 and the female rate has increased by 6% over the same period (Table 1).

Table 1 - Number of Deliberate Self-Harm Presentations and Persons who Presented in the Republic of Ireland in 2002-2012

	Presentations		Persons	
Year	Number	%Diff	Number	%Diff
2002	10,537	-	8,421	-
2003	11,204	+6%	8,805	+5%
2004	11,092	-1%	8,610	-2%
2005	10,789	-3%	8,594	-<1%
2006	10,688	-1%	8,218	-4%
2007	11,084	+4%	8,598	+5%
2008	11,700	+6%	9,218	+7%
2009	11,966	+2%	9,493	+3%
2010	12,337	+3%	9,887	+4%
2011	12,216	-1%	9,834	-<1%
2012	12,010	-2%	9483	-4%

Despite a decrease in the number of self-harm presentations in 2012 from 2011, the proportion accounted for by repetition in 2012 (21.0%) was higher than that in 2010 or 2011, and similar to the years 2003-2009 (range: 20.5-23.1%). This confirms that repetition continues to pose a major challenge to hospital staff and family members involved.

Drug overdose was the most common method of self-harm, involved in 69% of all acts registered in 2012, and more so in women (75%) than in men (62%). Minor tranquillisers, paracetamol-containing medicines and anti-depressants/mood stabilisers were involved in 41%, 28% and 22% of drug overdose acts. Attempted hanging was involved in 7% of all deliberate self-harm presentations (10% for men and 3% for women). At 776, the number of presentations involving attempted hanging has increased significantly by 6% from 2011 and by 75% from 2007 (n=444). This is the greatest number of deliberate self-harm presentations involving hanging recorded by the Registry and is 75% higher than the number recorded in 2007 (n=444). Cutting was the only other common method of self-harm, involved in 23% of all episodes and was significantly more common in men (26%) than women (21%). Alcohol was involved in 38% of all cases. While overall alcohol involvement decreased slightly from 2011, alcohol was significantly more often involved in male episodes of self-harm than female episodes (42% versus 36%, respectively).

Overall, in 12% of 2012 cases, the patient left the emergency department before a next care recommendation could be made. Following their treatment in the emergency department, inpatient admission was the next stage of care recommended for 38% of cases, irrespective of whether general or psychiatric admission was intended and whether the patient refused or not. Of all deliberate self-harm cases, 28% resulted in admission to a ward of the treating hospital whereas 10% were admitted for psychiatric inpatient treatment from the emergency department.

Following successive increases in deliberate self-harm in Ireland during the period 2007-2010, the 2012 Annual Report of the National Registry of Deliberate Self-Harm shows a second subsequent annual decrease. Considering the relatively small reduction, this should be interpreted with caution since it would be premature to conclude that this indicates a decreasing trend. The 2012 Registry outcomes underline an ongoing need for prevention and intervention programmes to be implemented at national level. Increased and continued support should be provided for evidence-based and best practice prevention and mental health promotion programmes in line with priorities in Reach Out, National Strategy for Action on Suicide Prevention (2005-2014) and Vision for Change, the Report of the Expert Group on Mental Health Policy.

SOURCE

Griffin, E. Arensman, E. Wall, A. Corcoran, P. Perry, I.J. (2013). National Registry of Deliberate Self-Harm Annual Report 2012. Cork: National Suicide Research Foundation.

FUNDING

The National Registry of Deliberate Self-Harm is funded by the Health Service Executive's National Office for Suicide Prevention.

Housing Preferences of Irish Forensic Mental Health Service Users on Moving into the Community

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ABSTRACT

Housing individuals with a mental illness is an essential part of their recovery which requires collaboration between hospital and community services.[1] Housing the recovering mental health service users is vital in order to support them and prevent relapse. Nonetheless, housing forensic mental health service users is complex due to the dual stigma of having a mental illness and a criminal background.

In 2010, Section 13 of Criminal Law (Insanity) Act (2006) which refers to the review of detention was amended. The amendment of Section 13 allows for discharge of service users subject to enforceable conditions to those who no longer require detention in the designated centre i.e., the Central Mental Hospital (Department of Justice, Equality and Law Reform, 2010). This amendment to Section 13 has a substantial impact on housing those forensic mental health service users who are eligible to move into the community. However, to date, no research study has been carried out in the Irish forensic mental health service, or within the Dublin City Council, to elicit the housing preferences of service users, and that is what warranted the need for this study.

A qualitative descriptive study was carried out with the aim of exploring the housing preferences of service users in the Irish forensic mental health setting. The objectives were:

- To identify and capture the views of mental health service users in a forensic setting on their housing preferences.
- To identify the strengths and weaknesses of current housing services from a service users' perspective.

At the time of data collection there were 99 in-patients in the Irish forensic mental health service. Of these, 31 service users were residing in two low secure hostels and one low secure unit, and these were the clients who were most eligible for community re-integration. Data was collected from nine service users who showed an interest in participating. Semi structured interviews were used to collect data which was later analysed using Colaizzi's (1978) method of analysis.

Three main themes which emerged from the analysis were service users' living choices, future considerations and expectations. On further analysis, sub-themes were identified under each of the main themes. These are represented in Table 1.

Table 1- Main Themes and Sub-Themes Emerging from the Findings

Main Themes	Sub-Themes
1. Living Choices	i. Living Alone ii. Sharing Accommodation iii. Remaining in Secure Setting
2. Future	i. Taking Service Users' Views into Consideration ii. Support in the Community iii. Accommodation Similar to the Community Hostel iv. Another Step Down Hostel v. Gradual Release vi. Information on Housing Options
3. Service users' Expectations	i. Hope of Positive Change

Housing remains one of the important services required by the forensic mental health services especially with the increased number of service users being discharged from the Irish forensic service since the amendment of Section 13 of the Criminal Law (Insanity) Act (2006). This report highlighted the service users' expectations in relation to their accommodation on moving into the community. Findings suggest the need to provide relevant information to the service users in order for them to make an informed choice. Support systems and collaboration with the housing authority is essential to provide better housing options for the forensic mental health service users.

SOURCE

Sweeney P. & Shetty S. (2013) Housing preferences of Irish forensic mental health service users on moving into the community, Journal of Forensic Nursing, 9(4):2;35-42.

Primary Care Support For Youth Mental Health - A Preliminary Evidence-Base for Ireland's Mid-West

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ABSTRACT

Mental and substance use disorders are leading causes of morbidity. Prevention/treatment among young people are global health priorities. International data have highlighted primary care and general practice as potentially key in addressing these. In Ireland, local and national initiatives have been established to address these challenges.

A small survey of physicians in Ireland's Mid-West (Limerick, Clare, North Tipperary) was carried out to:

- Document the spectrum of youth mental health problems
- Describe strategies adopted by GPs in dealing with these
- Identify barriers (perceived by GPs) to effective care of young mental health patients
- Collate GP-proposed strategies for improved care of this cohort

The method applied was a self-administered questionnaire on barriers/enablers to improved population health awareness, screening, 'youth-friendly' practices, and facilitation of interventions for youth mental health.

Thirty-nine GPs (31%) responded. Mental health was among the top three reasons why young people attended GPs. Depression, anxiety, family conflict, suicidal thoughts/behaviour were the most common issues. Referral practices of GPs for young people with mental/substance use disorders varied, with distinctions between actual and preferred management highlighting the need for improved access to existing services (i.e. Psychiatry, counselling/psychology, social/ educational interventions). A number of practices were located, or provided care, in Limerick's 'Regeneration Areas'. Young people living in these areas predominantly attended GPs due to mental/substance use issues and antenatal care, rather than acute or general medical problems.

GPs play an important role in meeting youth mental health needs in this region and, in particular, in economically deprived urban areas.

FUNDING

This study was supported by a research award from the Limerick Regeneration Agencies.

SOURCE

Irish Journal of Medical Sciences 2013 Jun;182(2):237-43.

Increasing Incidence of Hepatitis C among Intravenous Drug Users in HSE Mid-West

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INTRODUCTION

Four viruses are currently of particular concern in the context of drug misuse: Hepatitis C, Hepatitis B, HIV and to a lesser degree and more sporadically, Hepatitis A. There have been recent increases in the levels of blood borne viruses among drug users (particularly those who inject).[1] All client results since 2010 were reviewed to find out the prevalence of Hepatitis C in our Mid-West clinic and compare this to national and international rates.

METHODOLOGY

When a client initially assesses for methadone maintenance, in the HSE Mid- West, a detailed history is taken including at risk behaviour and viral screening is offered. All bloods taken in the clinic are recorded in a log book. A record is kept of the blood samples taken and the tests ordered. When the results return from the laboratory this log is checked and the results are also recorded. This research involved a review of the log books from 2010, 2011 and 2012.

RESULTS

On average, 58 Hepatitis C tests were ordered each year. The % positive rate of new cases, increased steadily from 6% in 2010 to 24% in 2012. In 2010 all female clients tested for Hepatitis C were negative. However, by 2012 there were 3 females with new cases of Hepatitis C.

Figure 1 - Hepatitis C Testing 2010-2012

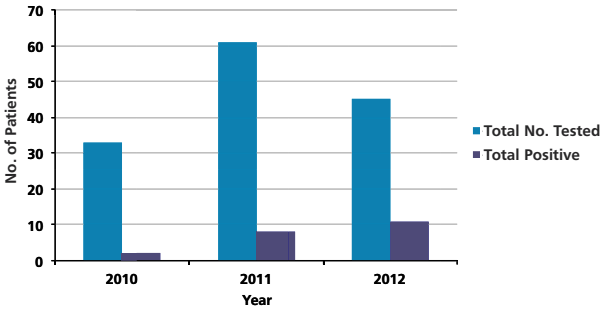
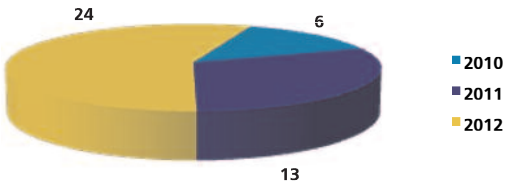


Figure 2 - Percentage Positive



A comparison of international and national rates yields the following information;

- Egypt 15%,Pakistan 4.8%,China 3.2%,Ireland 0.01-1.4% (World Health Organisation, 2102)[2]
- These rates are mainly as a result of unsafe injecting practices and using contaminated injecting equipment[2]
- In 2010 there were 1,226 people with Hepatitis C (Ireland)[3]
- In 2011 there were 1,255 people with Hepatitis C predominantly males (Ireland)[3]
- There were 116 new cases of Hepatitis C in 2012 (Ireland)[3]

CONCLUSION

The overall prevalence of Hepatitis C among drug users has increased in recent years and levels of Hepatitis C transmission remain elevated.[4] This is true in our clinic as well as nationally and internationally. Our clinic numbers are small however the steady increase in new cases is alarming. Clients need to be encouraged to access relevant advice and information as well as strategies to avoid exposure to blood borne virus infection and contamination.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Annual Scientific Meeting of Infectious Diseases Society of Ireland from May 23rd to 25th, 2013 in Brookfield Health Science Complex, University College Cork.

Prevalence Estimates and Determinants of Pre-Diabetes in Adults ≥45 Years in Ireland - the Survey of Life, Attitudes and Nutrition in Ireland 2007

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ABSTRACT

Pre-diabetes is an important indicator of future diabetes burden and many countries are reporting prevalence estimates of pre-diabetes. To date in Ireland, estimates of the prevalence of pre-diabetes were unavailable. Our objectives were to estimate the prevalence of pre-diabetes in a nationally representative sample of Irish adults and to explore determinants of pre-diabetes.

The Survey of Lifestyle Attitudes and Nutrition (SLAN) 2007 was a cross-sectional survey on health and lifestyle in a nationally representative sample of Irish adults. Analysis was performed on a subsample of 1,132 participants≥ 45 years who provided blood samples. Determination of pre-diabetes was based on American Diabetes Association (ADA) HbA1c cut-points (5.7-6.4% inclusive). To explore determinants, we modelled pre-diabetes prevalence as a function of a set of health system and socio-demographic variables using logistic regression.

The overall weighted prevalence estimate of pre-diabetes in participants ≥ 45 years was 19.8% (95% CI 16.4-23.9). There was no significant difference between age or gender-specific prevalence rates. Obesity was a significant risk factor for pre-diabetes on univariate and multivariate analysis. Population Attributable Fraction (PAF) estimates for excess BMI, physical inactivity and poor diet as causes of pre-diabetes were 31.3% (95% CI-3.9-54.5), 10.0% (95% CI -2.7-21.3) and 6.1% (95%CI-4.9-15.9) respectively.

The high levels of pre-diabetes detected in this study are worrisome. Population level interventions to address diet and lifestyle factors are needed urgently to prevent progression to diabetes in high-risk individuals.

PRESENTED

At the Irish College of General Practitioners (ICGP) Annual Research Conference Lyrath Estate Kilkenny on June 22nd, 2013 by Dr. Claire Buckley.

FUNDING

This project is partially funded by the Health Research Board, Ireland (Grant Reference Number: HPF/2009/79) and partially funded by the Irish College of General Practitioners (Research and Education Foundation).

SOURCE

Buckley, C.M., Madden, J., Balanda, K., Barron, S., Fahy, L., Harrington, J., et al. Pre-diabetes in Adults 45 years and Over in Ireland: the Survey of Lifestyle, Attitudes and Nutrition in Ireland 2007. Diabetic Medicine 2013:n/a-n/a.

The Prevalence and Determinants of Undiagnosed and Diagnosed Type 2 Diabetes in Middle-Aged Irish Adults

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ABSTRACT

The prevalence of Type 2 Diabetes within the Republic of Ireland is poorly defined, although a recent report suggested 135,000 cases in adults aged 45+, with approximately one-third of these undiagnosed. This study aims to assess the prevalence of undiagnosed and diagnosed diabetes in middle-aged adults, and compare features related to either condition, in order to investigate why certain individuals remain undetected.

This was a cross-sectional study involving a sample of 2,047 men and women, aged between 50-69 years, randomly selected from a large primary care centre. Univariate logistic regression was used to explore associations between socio-economic, metabolic and other health related variables in subjects with diagnosed or undiagnosed diabetes. A final multivariate analysis was used to determine odds ratios and 95% confidence intervals for having undiagnosed compared to diagnosed diabetes, adjusted for age, gender and significant covariates determined from univariate models.

The total prevalence of diabetes was 8.5% (CI 7.4%-8.8%); 102 subjects (5.0%) had diagnosed diabetes (CI 4.1%-6.0%) and 72 subjects (3.5%) had undiagnosed diabetes (CI 2.8%-4.4%). Obesity, dyslipidaemia, and family history of diabetes were all positively associated with both undiagnosed and diagnosed Type 2 Diabetes. Compared with diagnosed subjects, study participants with undiagnosed diabetes were significantly more likely to have low levels of physical activity and were less likely to be on treatment for diabetes-related conditions or to have private medical insurance.

The prevalence of diabetes within the Cork and Kerry Diabetes and Heart Disease Study is comparable to recent estimates from the Slán National Health and Lifestyle Survey, a study which was nationally representative of the general population. A considerable proportion of diabetes cases were undiagnosed (41%), emphasising the need for more effective detection strategies and equitable access to primary healthcare.

SOURCE

http://dx.plos.org/10.1371/journal.pone.0080504

Unhealthy Days and Quality of Life in Irish Patients with Diabetes

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ABSTRACT

The objective was to study the determinants of health-related quality of life (HRQoL) in Irish patients with diabetes using the Centres for Disease Controls' (CDC's) 'Unhealthy Days' summary measure and to assess the agreement between this generic HRQoL measure and the disease-specific Audit of Diabetes Dependant Quality of Life (ADDQoL) measure.

Data were analysed from the Diabetes Quality of Life Study, a cross-sectional study of 1,456 people with diabetes in Ireland (71% response rate). Unhealthy days were assessed using the CDC's 'Unhealthy days' summary measure. Quality of life (QoL) was also assessed using the ADDQoL measure. Analyses were conducted primarily using logistic regression. The agreement between the two QoL instruments was measured using the kappa co-efficient.

Participants reported a median of 2 unhealthy days per month. In multivariate analyses, female gender (P=0.001), insulin use (P=0.030), diabetes complications (P=<0.001) and obesity (P=0.022) were significantly associated with more unhealthy days. Older patients had fewer unhealthy days per month (P=0.003). Agreement between the two measures of QoL (unhealthy days measure and ADDQoL) was poor, Kappa=0.234

The findings highlight the determinants of HRQoL in patients with diabetes using a generic HRQoL summary measure. The 'Unhealthy Days' and the ADDQoL have poor agreement, therefore the 'Unhealthy Days' summary measure may be assessing a different construct. Nonetheless, this study demonstrates that the generic 'Unhealthy Days' summary measure can be used to detect determinants of HRQoL in patients with diabetes.

PRESENTED

As a poster presentation at the Irish Nutrition and Dietetic Institute AGM & Research Symposium in Dublin on October 8th 2011.

SOURCE

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081102

| Back to Contents |

A National Study of the Retention of Irish Opiate Users in Methadone Substitution Treatment

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ABSTRACT

Retention in treatment is a key indicator of methadone treatment success. The study aims to identify factors that are associated with retention.

To determine retention in treatment at 12 months for Irish opiate users in methadone substitution treatment. To indicate factors that increase the likelihood of retention.

National cohort study of randomly selected opiate users commencing methadone treatment in 1999, 2001 and 2003 (n=1,269).

Sixty-one percent of patients attending methadone treatment remained in continuous treatment for more than one year. Retention in treatment at 12 months was associated with age, gender, facility type and methadone dose. Age and gender were no longer significant when adjusted for other variables in model. Those who attended a specialist site were twice as likely to leave methadone treatment within 12 months, than those who attended a general practitioner. The most important predictor of retention in treatment was methadone dose. Those who received less than 60 mg of methadone were three times more likely to leave treatment. This increase in retention remained when the data were analysed by gender and type of treatment facility.

Retention in methadone treatment is high in Ireland in a variety of settings. The main factor influencing retention in methadone treatment was an adequate methadone dose and access to a range of treatment settings including from general practitioners.

Scientific Significance

Providing an adequate dose of methadone during treatment will increase the likelihood of treatment retention. Methadone treatment by the general practitioner is a successful method of retaining opiod users in treatment.

SOURCE

The American Journal of Drug and Alcohol Abuse. Nov 2012; Vol.38(6):551-558.

An Audit of the Identification of Overweight and Obesity by Primary Care Health Professionals from Referrals to a Dietetic Service

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INTRODUCTION

Obesity among Irish adults has been shown to be increasing by at least 1% every year.[1] Recommendations for the prevention, identification, and clinical management of overweight and obesity include the measurement of weight and height, and the calculation of body mass index (BMI) for adults or plotting BMI centiles for children.[1,2] The Community Nutrition and Dietetic Service receives referrals from healthcare professionals working in primary care.

METHODOLOGY

A recent audit of clinical files included the notation of weight, height, and calculated BMI to identify bodyweight status on the referral to the dietitian.

RESULTS

Of 538 files audited, 15% (n=80) were referred for adult weight management, 23% (n=126) for Type 2 Diabetes (T2DM), 10% (n=53) for paediatric weight management, 13% (n=71) for CVD and 39% (n=208) for other nutrition concerns (e.g. food intolerance, oral nutrition support, etc). As shown in Table 1, bodyweight status was identified in approximately half or less of the referrals received from primary care.

Table 1- The Actual Recording of Bodyweight Status Noted According to Reason for Referrals to the Dietetic Service

Reason for referral	Weight recorded % (n)	Height recorded% (n)	BMI calculated% (n)
Adult Weight Management	80 (64)	78 (62)	55 (44)
Type 2 Diabetes	74 (93)	65 (82)	48 (60)
Paediatric Weight Management	93 (49)	83 (44)	15 (8)
CVD	35 (25)	30 (21)	23 (16)
Other Nutritional Concerns	69(143)	60(124)	12 (25)

General practice referred more patients for dietetic treatment of adult weight management and T2DM (23% (n=51) vs. 11% (n=27); 43% (n=94) vs. 12% (n=27), $p \leq 0.001$) compared to Public Health Nurses/Area Medical Officers (PHN/AMO). Similarly, referrals for paediatric weight management and other nutritional concerns were more likely issued by PHN/AMO (17% (n=39) vs. 5% (n=10) GP; 60% (n=36) vs. 25% (n=55) GP, $p \leq 0.001$).

CONCLUSION

Failure to identify overweight and obesity represents a major barrier to obesity prevention and management in Ireland.[3] Measurement of weight and height provides a definitive diagnosis of overweight based on calculated BMI.[2] This audit has provided information that the measurement of body weight status is not routinely conducted in primary care settings, even among those patients being referred on to dietetic services for weight management. Future training programmes must address this anomaly to the national recommendations.

REFERENCES

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Supporting Smoking Cessation in Pregnancy

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INTRODUCTION

Tobacco use during pregnancy remains the single most preventable cause of perinatal morbidity and mortality.[1] Smoking status is routinely recorded in the Antenatal Clinic in Sligo Regional Hospital (SRH). However, under-reporting of smoking in pregnancy is well documented.[2,3] In 2008, 11% (201) of pregnant women attending the Antenatal Clinic at the Hospital reported smoking during pregnancy, of which, 5.5% (11) agreed to a referral to the Smoking Cessation Service (SCS).

OBJECTIVES

The primary aim of this study is to determine if introducing midwife-led brief advice on smoking cessation and validated testing of smoking status influences referral rates to the SCS. The study also aims to ascertain the proportion of pregnant women who report to smoking.

METHODOLOGY

All pregnant women (716) aged ≥16 attending the public Antenatal Clinic at SRH from October 2009 to September 2010 were invited to participate in the study. The midwife-led intervention involved a combination of urine cotinine and carbon monoxide breath testing to ascertain smoking status. The midwives offered brief advice on smoking cessation and referral to SCS to all pregnant smokers.

RESULTS

The total number of pregnant women aged ≥16 yrs attending the public clinic at SRH in the study period was 716. Eighty six (12%) women consented to the study, i.e. 630 women (88%) chose not to take part in the study.

A total of 16% (n=114) were recorded as current smokers [95% CI 13-19]. A total of 596 women were recorded as non-smokers (83%) and data was unrecorded for 6 women (1%). This point prevalence smoking rate is an increase of 4% compared with 2008 figures [95% CI 1-7]. Of the 86 women who consented to the study, 49 were self-reported smokers. A total of 65 (57%) of the self-reported smokers did not consent. All self-reported non-smokers who consented were recorded as validated non-smokers.

The total number of agreed referrals to the SCS in the study period was 56 out of 114 smokers (49%). Of the 56 referrals, 41 women (73%) attended the SCS either in person or by phone consultation. This corresponds to an attending referral rate of 36% [95% CI 27-45] of current smokers and represents an increase in the referral rate of 30% [95% CI 21-40] compared to 2008 figures (Odds ratio=9.7; [95% CI 5-20]). A quit rate of 68% was achieved for the 41 women who attended the SCS.

CONCLUSIONS

The combined interventions of midwife-led brief advice and smoking status testing has resulted in a dramatic 30% increase in the referral rate of pregnant women to the SCS. The increase must be seen in light of the low baseline referral rate of 5%. Most studies evaluating interventions for smoking cessation in pregnancy have quit rates as an outcome measure. We are therefore not aware of comparative figures for our study population. However, a study in a primary care population also found a significant increase in referral rates after the introduction of brief intervention.[3]

Firstly, the authors believe that the low consent rate to the study does not reflect negatively on the brief intervention approach but rather is a reflection of the complex challenges among this population group where non-consent to the study equals non-consent to referral to the smoking cessation service. Secondly, the high non-attendance rate to the SCS may in part be explained by the likely lower socio-economic status of the study participants, as women of low socio-economic status have more barriers to smoking cessation.[6]

These results have implications for clinical practice. Brief intervention does have an effect on smoking cessation in mid-pregnancy. However, early cessation, before 15 weeks gestation, has shown to reduce adverse outcomes for infants.[7] It is therefore imperative that all health professionals involved in antenatal care from confirmation of pregnancy and beyond pay attention to smoking behaviour and encourage the uptake of smoking cessation interventions.

REFERENCES

Available on request.

FUNDING

This research has received funding from the Health Promotion Department, HSE West Research and Education Foundation, Sligo Regional Hospital.

Overwhelming Parental Support in the Mid-West for Banning Smoking in Cars with Children

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INTRODUCTION

Tobacco is widely acknowledged as one of the greatest causes of preventable morbidity and premature mortality in history.[1] Research in Ireland suggests that smoking is responsible for approximately 7,000 deaths per year. Ireland led the world in becoming the first country to introduce a national workplace smoking ban. Research suggests that this ban is viewed by the overwhelming majority of people (98%) as a success.[1] However, the issue of young people smoking remains.[2]

The recent Private Members' Bill prohibiting smoking in private vehicles containing children therefore is to be commended.[3] Alongside Wales,[4] this proposal has once again put Ireland at the forefront of international moves to combat tobacco. Although some states in the US, Australia and Canada already have such a ban, no country has to date introduced such national legislation.[4-5] Such moves are not only aimed at protecting children directly, but are part of a growing movement to end the normalisation of smoking.[6] Other initiatives include smoke-free beaches, parks,[7] playgrounds.[8,9]

OBJECTIVE

The Irish Times noted the 'unusual level of unanimous support in Seanad Éireann' for this Bill.[3] Interestingly, the Irish Times report that 'Dr. Reilly said he was "in favour of legislating in this area" but added the public would need persuading first.'[4] An earlier (2008) MRBI Poll for ASH Ireland showed that 78% of Irish people supported this type of ban, while a repeat poll in 2011 showed that this figure had increased to 79%.[10] Although prior research found support for the current workplace smoking ban in the Mid-West,[11] little research is available exploring support for the ban specifically among parents in the Mid-West. This research therefore investigates this lacuna.

METHODOLOGY

Based on Department of Education and Skills online school lists, a random sample of six secondary schools in the Mid-West region were approached to take part in this research. Participating children were asked to bring a questionnaire home to parents for completion and return in a sealed envelope. This health survey included questions on lifetime and current smoking status, as well as the question 'Do you agree or disagree with an extension of the smoking ban in Ireland to include private vehicles carrying children?' Respondents were asked to indicate their answer to this attitudinal question on a five-point likert scale (Strongly Agree to Strongly Disagree).

RESULTS

A total of 351 parents/guardians from four participating schools responded to the questionnaire representing a response rate of 30%. 19% (67) of respondents were male, while 81% (283) were female. Respondents ranged in age from 28 to 60, with a mean age of 44 (sd=6). 53% (197) of respondents reported that they had smoked in excess of 100 cigarettes in their life. However, the current smoking status of the group indicated that 19% (69) of respondents smoked every day, 6% (22) smoked some days, and 75% (279) did not smoke at all.

In response to the proposal to extend the smoking ban to include private vehicles carrying children, 86% (320) of respondents either strongly agreed (69%, 257), or agreed (17%, 63). 4.3% (16) of respondents neither agreed nor disagreed, with 5.7% (21) disagreeing and 3.5% (13) strongly disagreeing. Respondents that reported smoking 'every day' were also highly supportive of such an extension of the smoking ban, with 45% (30) strongly agreeing and 33% (22) agreeing. A further 5% (3) neither agreed nor disagreed with 13.4% (9) disagreeing, and 5% (3) strongly disagreeing. Occasional smokers (i.e. those that reported smoking 'some days') showed a broadly similar level of support for the proposed ban (55% [12] strongly agreed, 14% [3] agreed, 14% [3] neither agreed nor disagreed,1% [5] disagreed, and 14% [3] strongly disagreed).

Discussion

It is clear from this research that there is widespread support among parents in the Mid-West for an extension of the smoking ban to include private vehicles carrying children. This support is evident, even among both occasional and regular smokers. The Irish Government must now show resolve in implementing and enforcing this ban in its role as steward of the peoples' health.[12]

REFERENCES

Available on request.

An Exploration into the Prevalence of Alcohol Use and the Values, Beliefs and Needs of Adolescents who Engage in Regular Alcohol Use within the Limerick and North Tipperary Regions

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INTRODUCTION

Ireland has one of the highest levels of alcohol consumption in the EU, with the average person reported as having consumed 6.7 units of pure alcohol during the last day of alcohol consumption (European School Survey Project on Alcohol and Other Drugs, 2011). Alcohol misuse is becoming increasingly prevalent in our society among our younger population and frequent heavy episodic drinking has become synonymous with our culture. Figures from the Health Research Board (HRB) show that the death rate in Ireland resulting from alcohol abuse has trebled between 1995 and 2009. Alcohol related accidents and illnesses account for 2.5 million deaths worldwide each year, and, in Ireland, children as young as ten years of age every year require medical attention in hospital after experimenting with and abusing alcohol and drugs.

OBJECTIVE

This research is of an explorative nature and sets out to analyse the prevalence of alcohol use and misuse among young adolescents, their motives and attitudes towards alcohol consumption and their perceived barriers to participation in alternative healthier behaviours and activities.

METHODOLOGY

Quantitative methods were employed to investigate the prevalence of alcohol use, the general perceptions and attitudes among adolescents within secondary school on alcohol use and the availability of alternative healthier activities within their communities. A survey questionnaire was distributed among 270 individuals from 7 different schools which resulted in a total of 207 respondents.

RESULTS

The research findings indicate that while the majority of respondents reported they did not regularly consume alcohol, it was evident that under-age alcohol use and misuse is prevalent among young adolescents attending second level education. The mean age of alcohol consumption is 13 years of age for both girls and boys, with the average respondent consuming alcohol on a regular weekly basis or every second week. Binge drinking was evident with the average respondent consuming 5 or more units on one drinking occasion with no apparent significant difference between gender and the amount of alcohol consumed. Drinking for social reasons, also identified by Andersen et al[1]., to feel more relaxed and liking the tastes, were the main motives for drinking among students. The preference to engage in other activities was apparent for those who did not regularly drink alcohol. The lack of provision of alternative healthier activities such as more sporting activities, cinema trips and outdoor excursions, supported by local youth clubs and community groups, were identified as barriers to attaining healthier lifestyles.

CONCLUSIONS

This research illustrates how prevalent alcohol use is among teenagers within our society and it is important to change their beliefs and attitudes through the provision of positive health development programmes incorporating the health belief model. It is imperative that the socialization process and process of learning to drink, which evolves throughout one's lifetime, is readdressed by all key stakeholders involved in the provision of health education and promotion. State support is necessary to provide adequate funding for alcohol awareness campaigns, policy and research development, increased funding for resources and training for youth and health promotion workers, and to support the work of the local drug task forces. Strong community development networks and initiatives, involving parents, volunteers, teachers and youths are paramount in creating and sustaining healthier environments for children to live, learn and play in, where the barriers to participation in healthier activities are removed and the advocacy of their health and well-being is placed high on school and community agendas.

REFERENCES

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Young Men - Perceptions of Masculinities and Perceived Impact on Health - An Exploratory Study

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INTRODUCTION

A differential continues to exist between female and male life expectancy in Ireland.[1] Recent research has pointed to the realisation that male mortality rates cannot be attributed solely to biological factors. Hegemonic masculinities also influence gendered social actions and behaviours. These are expressed through acceptable social and behavioural actions including displays of physical and emotional strength, reluctance to seek help, exhibiting dominance over others in displays of power and success, risk taking and predatory heterosexuality.[2] This has led to the realisation that the gendered socialisation and the expectations of men often lead to risky and unhealthy behaviours.[3]

OBJECTIVE

This research sought to explore the attitudes and beliefs of young men (16-17 years) specific to masculinity. It sought to explore how they conceptualise what it means to be a man and how these perceptions contribute to their health behaviours.

METHODOLOGY

A qualitative research approach comprising focus groups was adopted for the study. Thirty five students from four large secondary schools (in counties Clare and Limerick) participated in four separate focus groups, which were interactive and experiential in nature. Focus groups were transcribed verbatim and thematic coding employed for data analysis.

RESULTS

The results indicated that there were deeply held traditional gendered differences in the way that the young men understood masculinities and male health inequalities. Engagement with 'tough' sport was perceived as pursuing the ideal masculine identity, reflective of international literature, which states that men must be 'tough' and they engage in risk activity to reinforce their 'manliness'.[4] Hegemonic masculinities that were expressed in opposition to femininities were expressed in particular in relation to fighting where being seen to win was equated with masculinity and being seen to lose made one "feel like a woman." Being able to handle excessive drinking was also equated with masculinity. Being competitive in speed and skill in driving was also cited as important. While violence towards women was not condoned an undercurrent of dismissiveness was evident in comments such as "women are not good for your mental health." Dealing with anger was contrasted in how women use words to deal with anger while men "burn and destroy stuff." In terms of health seeking they expressed that men do not seek help if they are injured or sick and this appeared a deeply held belief evidenced in comments such as "masculine guys get sick, they just take it"; "men are supposed to suffer in silence."

CONCLUSIONS

The implications of the research are several. The deep seated gendered perspectives of young men continue with alacrity. There is currently little room in the school curriculum for health education that engages in depth with concepts such as masculinities and health but there is urgent need to redress this imbalance. Hegemonic masculinities that impede health gain require challenge. This study is an initial investigation, there is clearly scope to deepen what is known about this field in order to inform more effective and gender balanced health education in schools.

REFERENCES

Available on request.

Contraceptive Methods Used by Sexually Active Irish Adolescents

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INTRODUCTION

The Health Behaviour in School-aged Children (HBSC) study is a cross-national research project which aims to increase the understanding of young peoples' health, well-being and behaviours. The findings are used to inform and influence population health, health services and health education policy and practice at local, national and international levels, in addition to contributing to the academic literature. The inclusion of four sexual behaviour questions has been mandatory for 15 year old participants in HBSC since 2002. Due to practical, political and ethical reasons, these questions have only been included in Ireland since 2010.

OBJECTIVE

To document contraceptive methods reported by sexually active Irish adolescents aged 15-17.

METHODOLOGY

Census data were used to ensure that the study accessed a nationally representative sample of school-aged children. School principals were approached by post and HBSC questionnaires in English or Irish were offered. Questionnaires were provided to students along with blank envelopes to facilitate anonymity, information sheets for teachers, parental consent forms where necessary and classroom feedback forms. Data were collected from 16,040 children, of whom 4,367 were aged between 15-17 years. Ethical approval was granted by the Research Ethics Committee of the National University of Ireland, Galway and consent from schools, parents and children was obtained where required.

The sexual behaviour questions are designed to measure the proportion of students who have engaged in sexual intercourse, the age of sexual initiation and the extent to which students are protected against pregnancy and sexually transmitted infections (STIs). In order to address pregnancy prevention, participants were asked about the method(s) of contraception used at last intercourse. Possible response options included two reliable methods of contraception - 'birth control pills' and 'condoms' and one non-reliable but frequently reported method - 'withdrawal'. In addition, the response options 'no method was used to prevent pregnancy' and 'not sure' were offered. Participants were also provided with space to report other methods of pregnancy prevention used at last intercourse.

RESULTS

Table 1 - Contraception at Last Intercourse Reported by Sexually Active Irish 15-17 Year Olds

Contraceptive Method	% within the sexually active population
Condom	73.6
Birth Control Pill	21.9
Withdrawal Method	14.5
No Method	7.6
Not Sure	3.6
Injection	*0.19*
Implant	*1.0*
Patch	*0.19*
Morning After Pill	*0.09*

(Multiple methods were reported; italics derived from the open question)

Of the 4,367 participants, 23.3% reported being sexually active. 'Condom' use was the most frequently reported method of contraception followed by the 'birth control pill' and 'withdrawal'. Almost 17% reported dual use of condom and birth control pill. Fewer than 2% reported using other reliable methods of contraception, and a tiny minority reported a range of unreliable or inappropriate methods, for example crisp packets. Around 8% of the sexually active adolescents reported engaging in unprotected sex.

CONCLUSION

Sexually active adolescents report condoms, birth control pills and withdrawal as the most frequent method of contraception. Other contraceptive methods are not widely reported. The majority of sexually active Irish adolescents report employing some method of pregnancy prevention, however a small proportion report engaging in unprotected or poorly protected sex bringing the risk of unintended pregnancy, STIs, abortion and associated risk.

FUNDING

The Irish HBSC Study is funded by the Department of Health. The Adolescent Sexual Health in Ireland: Data, Dissemination and Development Study is funded by the IRC and the HSE Crisis Pregnancy Programme. We would like to thank the school principals, teachers and students for their time.

Taking Part in School Life - Views of Children

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ABSTRACT

Child participation is increasingly a global phenomenon as stated by Article 12 of the UN convention on childrens' rights. This supports the first principle, Democracy, of the Health Promoting School Movement.

The purpose of this study was to facilitate a three-phase participatory research process (PRP) to document the views of children about participation in school. A total of 248 primary school pupils aged 9-13 years participated.

The first group of pupils answered two questions, "What makes you feel a part of the school?" and "If it was your job to make sure everybody in your school felt a part of the school, what would you do?," on individual coloured paper; the second group categorised these data separately, by question, assigning labels for each of the categories; the third group used the categories to develop schema.

The analysis was inductive. The most common categories for what made pupils feel a part of their school were school uniforms, sports, friends, teachers and their school/classroom environment. Increase in the number of school activities, encouraging friendship and equal participation were key indicators of how pupils would ensure that everybody felt a part of the school.

The findings illustrate the views of children on interpersonal relationships and belonging as important for taking part in school life. This paper illustrates childrens' understanding of what taking part in school means to them. The PRP encouraged pupils to have full control of the three-phase research process, which demonstrated the ability of children to work together in groups while having fun at the same time.

PRESENTED

Part of this study was presented at the European Education, Research Association Annual Conference, Education, Development and Freedom, in Cádiz, Spain on September 18th, 2012 by Ms. Y. John-Akinola.

FUNDING

This research was supported by a doctoral fellowship from the College of Medicine, Nursing and Health Sciences, National University of Ireland, Galway. The authors would like to extend our appreciation to all the pupils, teachers and principals of the schools who participated in the study.

SOURCE

Yetunde Olufisayo John-Akinola, Aoife Gavin, Siobhán Elizabeth O'Higgins, Saoirse NicGabhainn, (2014) "Taking part in school life: views of children", Health Education, Vol.114 Iss:1, pp.20–42.

| Back to Contents |

National Evaluation of the First Time Managers' Programme

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INTRODUCTION

The First Time Manager Programme was developed in recognition of the influence that management training can have on organisational performance. It is a standardised management training programme for first time managers from any discipline within the HSE. A key focus of the training is the development of people management skills. The programme commenced in each of the four HSE regions in 2011. The study aimed to determine the effectiveness of the training. Key objectives were to assess the impact of the training on knowledge and skills, the transfer of learning to the workplace, the appropriateness of the module content, and the supports provided.

METHODOLOGY

The methodology employed a combination of both qualitative and quantitative research techniques including interviews with Performance and Development Managers (n=4), a survey of individuals waiting to attend the training (n=69), a survey of managers attending the training (n=154), a survey of line managers of those attending the training (n=140), focus groups with programme facilitators (n=4), and interviews with key stakeholders (n=5). Mann Whitney U tests were utilised to analyse key issues emerging from the quantitative data. Responses from the focus groups, interviews, and open ended survey responses were grouped into the key themes that emerged.

RESULTS

The vast majority of participants rated themselves positively in terms of the knowledge and skills taught and frequently applied what they had learnt to their management role. For some topics, knowledge and skill levels appeared sufficient prior to the training. Eight out of ten of the line managers of participants saw a positive impact on core competencies and how participants understood their role. Some facilitators and Performance and Development Managers reported difficulties with a number of the modules, suggesting a need for greater emphasis on managing people and the challenges facing first time managers. The majority of participants rated each method of training delivery (52-97%) and the training materials (77-92%) as good or very good. Facilitators overall were unhappy with the training materials, highlighting that it was too basic, poor quality or out of date. There has been a lack of standardisation in the way the training has been implemented. Factors contributing to this included facilitator training, the training materials, use of outside speakers, and the inclusion of components of previous training programmes. Several facilitators highlighted that there was a need to accredit the training programme. Only half (49%) of the participants met with their line manager after the training. Of these, 42% had developed an action plan. Most facilitators reported that they had experienced difficulties getting line managers to meet participants or to have a proper discussion about their role. After the training, 72% of participants reported that their understanding of their current role was good. Training however appeared to have a limited impact on role clarity with understanding of role not differing significantly for those waiting to attend the training. Almost three quarters (71%) of participants stated that a refresher course would be beneficial and 83% thought that there was a need for another course on more advanced management skills. Overall, 92% of participants stated that the First Time Managers' Programme was good or very good.

CONCLUSIONS

The evaluation has shown the significant benefit of the Programme. It should be continued as part of the overall HSE Leadership and Management Development Strategy. Nevertheless, a number of issues did emerge that would need to be addressed. Key recommendations included the need to review modules and to further develop those dealing with people management skills, improve line manager and facilitator support systems, obtain accreditation for the training, and develop an overall programme of management training within the HSE.

Managers' Current Knowledge, Awareness and Potential Contribution to Change Management

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INTRODUCTION

Change management has become a critical feature of public sector service delivery. Health Service Executive (HSE) managers are required to incorporate change management processes to improve service delivery and to achieve more with fewer resources. Currently, there is limited information to determine whether this has been achieved.

OBJECTIVE

The objective of this research was to examine managers' knowledge, and awareness of change management, and its utilisation by managers in the HSE. It explored the outcome of managers' last change management initiative to determine its impact and assess whether 'hard' or 'soft' principles of change management[1] were utilised. It also assessed the level of training received in the process of change management.

METHODOLOGY

A cross-sectional study design was employed. A quantitative questionnaire was sent to all HSE managers who were working currently within the Acute Hospital Sector or in Primary, Community and Continuing Care (PCCC) in Co. Galway. A total of 100 managers were included. Fifty people were randomly selected out of a total of 93 Acute Hospital Sector managers and 50 people were randomly selected out of a total of 75 PCCC managers.

RESULTS

The response rate was 61% (Acute Hospital Sector = 50.8%), PCCC = 49%). HSE managers had on average 11.9 years experience in the capacity of HSE manager. Overall 90.2% had introduced a change process in the previous year, with 42% rating the change that they had introduced as significant. In addition, 38% saw the potential contribution of change management, and 63% rated the outcome of the last change management initiative that they have introduced positively. 53% of HSE managers were familiar with models/theories of the change management process (mean number of change management models used=0.9; mean number of tools to achieve understanding of organisational change used =0.87; mean number of tools used to assess capacity for change=1.18; mean number of tools used to achieve change=0.70). HSE managers showed familiarity with the 'hard' and 'soft' principles of change management with the 'soft' principles given a more favourable rating. When asked to reflect on the last change process that they delivered it was the 'hard' principles that they utilised more. Training in the process of change management has not been undertaken by 62% of managers. Those that had received training used significantly more change management models and tools than those who had not received any training in the change management process.

CONCLUSION

Change management is being embraced and valued by the majority of HSE managers and is being utilised to initiate change. It is clear that HSE managers overall are receptive to change and are willing to engage positively with the change management process. However, only half are utilising theories and models, with a lack of diversity in terms of the range of models and theories used. The HSE needs to encourage the use of more models and theories to make change management initiatives more effective. Training has been shown to be a key factor to achieve this. Both 'hard' and 'soft' principles of change management need to be emphasised to promote successful outcomes in the change process.

REFERENCE

1. Sirkin, Harold L., Keenan, Perry, Jackson, Alan. (2005). 'The Hard Side of Change Management', Harvard Business Review, October 2005,109-118.

FUNDING

This research has received funding from Continuing Medical Education (HSE).

The Relationship between Gender Role Stereotypes and Requisite Managerial Characteristics - The Case of Nursing and Midwifery Professionals

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INTRODUCTION

Gender stereotypes and ideologies about what is possible, and or, appropriate for females and males limit their societal roles, thereby affecting their participation in the labour force and their contributions to their families. Studies have been carried out to determine gender role stereotypes and requisite managerial characteristics across a number of industries and among student samples. A consistent pattern of results emerges from the male samples used in these studies. Male participants consistently gender type the managerial role in favour of men. Findings recorded by female participants have been less consistent, with mixed findings recorded among the results. To date, no study has been carried out within the nursing and midwifery profession.

The aim of this study was to examine the relationship between gender role stereotypes and requisite managerial characteristics within the nursing and midwifery profession. Traditionally, management and the managerial role have been dominated by men worldwide. However, in recent years the number of female managers has been increasing. The nursing and midwifery profession is one sector in Ireland where the number of females and female managers outweigh their male counterparts. Nonetheless, the numbers of men entering into the profession has increased steadily in recent years. This has also resulted in an increased number of male clinical nurse managers (CNMs) within the profession.

In order to allow for direct comparisons with previous research Schein's Descriptive Index (SDI) was used in this research. SDI focuses on the relationship between gender and management stereotypes, reflecting the extent to which men and women are viewed as leader-like. In a typical SDI study, participants rate how characteristic the 92 descriptive words/phrases are of men/women and managers in general. A total of 239 undergraduate and 171 post experience responses were collected. Intraclass correlation coefficients (ICC, r^1) were computed to determine the relationship between the males/females and requisite managerial characteristics. This allowed us to examine the ratings of the 92 descriptive items and compare the ratings of student nurses and midwives to the rating recorded by qualified nurses and midwives.

The analysis reported a significant resemblance between the overall ratings of men and managers (r^1=0.581, p<0.001) and the overall rating of women and managers (r^1=0.540, p<0.001). Overall, nurses and midwives believed both males and female possess requisite managerial characteristics. To determine whether or not gender had an impact on these results, ICC tests were carried out to moderate for gender. These tests revealed that the gender of respondents did have an impact on the relationship between gender role stereotypes and requisite management characteristics. Within the undergraduate female sample, a stronger correlation was recorded for women and managers (r^1=0.617, p<0.001) than men and managers (r^1=0.503, p<0.001). Qualified nurses and midwives recorded higher ICC values for men and managers (r^1=0.623, p<0.001) than between women and managers (r^1=0.563, p<0.001). After working within the sector, female nurses and midwives reported stronger correlations between men and managers (r^1=0.623, p<0.001) than between women and managers (r^1=0.563, p<0.001).

Implications for nursing management: Males gender typed the managerial role in favour of men. With an increase in numbers of men joining the profession and increased representation of males at Clinical Nurse Manager (CMN) level there is a possibility that the profession will become two-tiered. Healthcare organisations should pay careful consideration to career development and implement career structures which ensure equal access to managerial roles for both genders.

SOURCE

Berkery, E., Tiernan, S., Morley, M. (2012). The relationship between gender role stereotypes and requisite managerial characteristics: the case of nursing and midwifery professionals. Journal of Nursing Management, doi:10.1111/j.1365-2834.2012.01459.x

Chronic Condition Self-Management (CCSM) Learning Package for GP Trainees

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INTRODUCTION

Chronic disease accounts for a significant proportion of the disease burden and an increasing workload for GPs. Self-management is an important component of managing chronic conditions because of the complexity and increasing fragmentation of the management of chronic conditions. As of September 2011, the new (WONCA) EU definition of general practice includes as its 12th characteristic "Promotion of patient empowerment and self-care." There is a need to enable GPs to fulfill this element of general practice.

OBJECTIVE

The aim of the project was to develop an online learning package to assist GP trainees in facilitating self-management in patients with a chronic condition.

METHODOLOGY

A literature review, consultation process with stakeholders and piloting with the intended audience has taken place and an online training package has been developed.

RESULTS

The module contains six lessons, the content of which is generic and can be used for a range of chronic conditions. Each lesson starts with a list of learning objectives. Relevant examples from case studies and video clips of consultations are interspersed in each lesson to provide real world examples of what GPs can (and are) doing in chronic condition self-management. Practical tips and implementation strategies are provided to facilitate uptake. Finally, a list of possible resources and references are included at the end of the each lesson.

CONCLUSION

The module meets the recommended NICE characteristics of a good self-management curriculum. It has been developed in such a way as to be flexible for adaption to other training sites once relevant case studies and video consultations are replaced. The development has also allowed for new material to be added at any stage and anyone who has already viewed the package will receive an email to advise that new/updated material has been added. An evaluation of the module is currently underway, which includes an assessment of its suitability for other health professionals.

PRESENTED

At European General Practice Research Network in June 2013.

FUNDING

This research has received funding from a Health Service Executive, Medical Education Training and Research Development Grant and an Irish College of General Practitioners Grant .

Systematic Review - The Effectiveness of Educational Interventions for Primary Care Health Professionals Designed to Improve Self-Management in Patients with Chronic Conditions

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INTRODUCTION

In recent years, a development in chronic condition management is the involvement of patients in their own care to improve outcomes. However, the related literature focuses on patient education to improve knowledge of the illness, which does not by itself bring about patient engagement or patient empowerment for self-management of chronic conditions.

In order to create a structured approach to effective patient self-management of chronic conditions in primary care, it is necessary to specifically assess which educational interventions aimed at health professionals in primary care improve self-management by patients of their own chronic conditions.

OBJECTIVES

The primary aim of this systematic review is to examine the effectiveness of professional educational interventions designed to improve self-management of chronic conditions.

The secondary aim is to inform the development of an educational programme for primary healthcare professionals across Europe which will be effective in empowering patients to improve their self-management of their chronic conditions (non-communicable disease).

METHODOLOGY

A systematic review using the following: PubMed, ERIC, EMBASE, CINAHL, PsycINFO, Web searches, hand searches and Bibliographies with specified inclusion and exclusion criteria and search terms.

This review is concerned with all chronic conditions as they occur generically in the primary care setting, rather than focusing on any specific chronic condition.

RESULTS

At the time of writing, the search of all outlined databases has been conducted with 6,816 abstracts identified - the first stage of the review of these identified 75 possibly relevant articles, with the second stage reducing this to 43 full text articles to consider. At the time of writing 9 of these articles have been agreed as being relevant to the systematic review. The initial analysis of these suggest that training for health professionals around the principles of supporting chronic condition self-management (CCSM) is a necessary component of success.

CONCLUSION

This systematic review has the potential to contribute to improving patient outcomes through assessing the existing evidence for educating primary care clinicians in this domain.

PRESENTED

- At the Irish College of General Practitioners (ICGP) Research and Audit Conference, in Kilkenny on June 22nd, 2013.
- At the European General Practice Research Network (EGPRN) Autumn Conference in Malta in October 2013.

FUNDING

This research has received funding from the WONCA Anniversary Fund.

The First Evaluation of CPD Advanced Paramedic Teaching Methods in Ireland

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Health Service Executive, National Ambulance Service College, Dublin[2]
Emergency Department, Connolly Hospital, Blanchardstown, Dublin[3]

ABSTRACT

Continuing professional development (CPD) will soon be mandatory for Advanced Paramedics (APs) registered with Ireland's pre-hospital regulatory body, The Pre-Hospital Emergency Care Council (PHECC). Effective and efficient CPD methodologies are needed. We determined what type of training methods might be used to reduce associated costs while maintaining effectiveness and benefit.

In 2010, an 'up-skilling' programme for APs was introduced in Ireland comprising: a) self-directed learning using a purpose-designed manual; b) workbooks based on the manual and clinical practice guidelines; c) small group practical sessions with discussion-based skill stations and c) practical scenario-based assessment.

Participants were invited to complete a web-based survey assessing a) short-term effectiveness; b) medium-term effectiveness and c) user friendliness of the educational modalities. The preferred learning styles and respondents' perceptions of outcome were determined.

Overall, 49% of participants responded. Of those eligible, 73% believed that practical learning encouraged knowledge retention and skills in the immediate and medium-term, 82% believed practical learning influenced patient care immediately, while 75% stated that it influenced patient care six months later. All respondents agreed that practical learning was important, with 90% stating that it was enjoyable. Overall, 80% found the provided manual accessible, while >40% believed that the manual alone did not provide all necessary information, 77% had referenced it since completing the programme.

APs enjoyed, and benefited from, the educational programme and the knowledge gained benefited patients in the short and medium-term. This study suggests that educators and training sponsors should consider the benefits of small group-based practical learning for APs.

FUNDING

This work was supported partially by funding of post-graduate studies received from the Pre-Hospital Emergency Care Council (PHECC).

SOURCE

Knox, S., Cullen, W., Collins, N., Dunne, C. (2013). First evaluation of CPD advanced paramedic teaching methods in Ireland. Journal of Paramedic Practice 5(1):29-35.

Concordance Studies between Hospital Discharge Data and Medical Records for the Recording of Lower Extremity Amputations

Casey, C., Buckley, C., Kearney, P., Ali, F., Ní, Bhuachalla, C., Roberts, G., Perry, I.J., Bradley, C.P.

ABSTRACT

Hospital discharge data have been used to study trends in Lower Extremity Amputation (LEA) rates in people with and without diabetes. The aim of this study was to assess the reliability of routine hospital discharge data in the Republic of Ireland (ROI) for this purpose by determining the level of agreement between hospital discharge data and medical records for both the occurrence of LEA and diagnosis of diabetes.

Two concordance studies between hospital discharge data (HIPE) and medical records were performed. To determine the level of agreement for LEA occurrence, HIPE records were compared to theatre logbooks in 9 hospitals utilising HIPE over a two-year period in a defined study area. To determine the level of agreement for diabetes diagnosis, HIPE records were compared to laboratory records in each of the 4 largest hospitals utilising HIPE over a one week period in the same study area. The proportions of positive and negative agree - ment and Cohen's kappa statistic of agreement were calculated.

During a two-year study period in 9 hospitals, 216 LEAs were recorded in both data sources. Sixteen LEAs were recorded in medical records alone and 25 LEAs were recorded in hospital discharge records alone. The prop- ortion of positive agreement was 0.91 (95% CI 0.88-0.94), the proportion of negative agreement was 0.99 (95% CI 0.98-0.99) and the kappa statistic was 0.91 (95% CI 0.88-0.94).

During a one-week study period in 4 hospitals, 49 patients with diabetes and 716 patients without diabetes were recorded in both data sources. Eighteen patients had diabetes in medical records alone and 2 patients had diabetes in hospital discharge records alone. The prop- ortion of positive agreement was 0.83 (95% CI 0.76-0.9), the proportion of negative agreement was 0.99 (95% CI 0.98-0.99) and the kappa statistic was 0.82 (95% CI 0.75-0.89).

This study detected high levels of agreement between hospital discharge data and medical records for LEA and diabetes in a defined study area. Based on these findings, we suggest that HIPE is sufficiently reliable to monitor trends in LEAs in people with and without diabetes in the ROI.

PRESENTED

As a poster presentation at the Winter Scientific Meeting, Faculty of Public Health Medicine, Royal College of Physicians of Ireland, December 2012 by Caoimhe Casey.

SOURCE

BioMed Central Research Notes. 2013;6:148.

A Method for Design and Development of Medical or Healthcare Information Websites to Optimise Google™ Search Engine Results Page (SERP) Rankings

Dunne, S.,[1] Cummins, N.,[2] Hannigan, A.,[3] Shannon, B.,[4] Dunne, C.,[5] Cullen, W.[6] Graduate Entry Medical School, University of Limerick[1,2,3,4,5,6] Centre for Interventions in Infection, Inflammation & Immunity (4i), Graduate Entry Medical School, University of Limerick[3,5,6]

ABSTRACT

The Internet is a widely used source of information for patients searching for medical/healthcare information. While many studies have assessed existing medical/healthcare information on the Internet, relatively few have examined methods for design and delivery of such websites - particularly those aimed at the general public.

This study describes a method of evaluating material for new medical/healthcare websites, or for assessing those already in existence, which is correlated with higher rankings on google.com Search Engine Results Pages (SERPs).

A Website Quality Assessment (WQA) tool was developed using criteria related to the quality of the information to be contained in the website in addition to an assessment of the readability of the text. This was retrospectively applied to assess existing websites that provide information about generic medicines. The reproducibility of the WQA tool and its predictive validity were assessed in this study.

The WQA tool demonstrated very high reproducibility (intraclass correlation coefficient=0.95) between two independent users. A moderate to strong correlation was found between WQA scores and rankings on google.com SERPs. Analogous correlations were seen between rankings and readability of websites as determined by Flesh Reading Ease and Flesh-Kinkaid Grade Level scores.

The use of the WQA tool developed in this study is recommended as part of the design phase of a medical or healthcare information provision website, along with assessment of readability of the material to be used. This may ensure that the website performs better on google.com searches. The tool can also be used retrospectively to make improvements to existing websites; thus, potentially enabling better google.com search result positions without incurring the costs associated with Search Engine Optimisation (SEO) professionals or paid promotion.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

Dunne S., Cummins N., Hannigan A., Shannon B., Dunne C., Cullen W.A. Method For Design and Development of Medical or Healthcare Information Websites to Optimise Google™ Search Engine Results Page (SERP) Rankings. J Med Internet Res (forthcoming).doi:10.2196/jmir.2632

| Back to Contents |

A Review of the Differences and Similarities between Generic Drugs and their Originator Counterparts, Including Economic Benefits Associated with Usage of Generic Medicines, Using Ireland as a Case Study

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ABSTRACT

Generic medicines are those where patent protection has expired, and which may be produced by manufacturers other than the innovator company. Use of generic medicines has been increasing in recent years, primarily as a cost saving measure in healthcare provision. Generic medicines are typically 20% to 90% cheaper than originator equivalents. Our objective is to provide a high-level description of what generic medicines are and how they differ, at a regulatory and legislative level, from originator medicines. We describe the current and historical regulation of medicines in the world's two main pharmaceutical markets, in addition to the similarities, as well as the differences, between generics and their originator equivalents including the reasons for the cost differences seen between originator and generic medicines. Ireland is currently poised to introduce generic substitution and reference pricing. This article refers to this situation as an exemplar of a national system on the cusp of significant health policy change, and specifically details Ireland's history with usage of generic medicines and how the proposed changes could affect healthcare provision.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

BMC Pharmacology and Toxicology 2013,14:1.DOI: 10.1186/2050-6511-14-1.

News & Events

Research Bulletin

Volume 7 Issue 1

| Back to Contents |

EUROPEAN INVESTMENT BANK SIGN OVER €100 MILLION TO UL AS THE UNIVERSITY LAUNCHES CAPITAL DEVELOPMENT PLAN 2014 - 2018

1,000 jobs are expected to be created over the lifetime of the Development Plan

The European Investment Bank, Europe's long-term lending institution has agreed to provide €100 million for the University of Limerick's Capital Development Plan 2014 to 2018. The European Investment Bank loan was formally agreed by Professor Don Barry, President of the University of Limerick and Jonathan Taylor, European Investment Bank Vice-President responsible for Ireland, and witnessed by Michael Noonan TD, Irish Finance Minister and Governor of the European Investment Bank.

The university's ambitious €224 million Capital Development Plan consists of 12 infrastructural develop-ments on the University's north and south campus, construction of a new Clinical Education Research Building on the site of University Hospital Limerick, and development of a City Centre Campus including student residences and an academic building in Limerick city centre.

"Our Plan outlines our vision for the future development and expansion of the University of Limerick covering 50,000 square metres of state-of-the-art research, student, sports and academic facilities. The granting of this loan facility clearly indicates a very welcome endorsement of UL's development plans by the European Investment Bank. We look forward to working closely with the EIB to optimise the benefits which this will deliver for UL, for Limerick and for Ireland and the EU as we extend UL's role as a dynamic agent of economic, social and cultural development. UL is committed to making a major contribution to the Limerick 2030 Economic and Spatial Plan which will allow us all to work in partnership to deliver a true renaissance of Limerick," said Professor Don Barry, President of the University of Limerick, speaking at the launch of the UL Capital Development Plan 2014-2018.

"Expansion of the University of Limerick's research and academic facilities, as well as a new library and student facilities will transform education and student life for future generations. Whilst the new city centre campus will provide an economic boost and new living accommodation in Limerick. The European Investment Bank is pleased to continue its support for university investment in Ireland and help implement the University of Limerick's Capital Development Plan, an ambitious framework for transforming education opportunities over the coming years." said Jonathan Taylor, European Investment Bank Vice-President.

1,000 jobs are expected to be created over the lifetime of the Development Plan with 290 full-time high value positions and 710 construction related positions over the period of the plan.

The off-campus capital developments are valued at €62 million and represent 30% of the overall investment of the Development Plan. Funding for the remainder of UL's Capital Development Plan will be secured from a number of sources, including philanthropic donors, state grants, commercial activities and University of Limerick funding.
Minister Noonan stated: "This is very positive news for the University of Limerick and indeed for Limerick and the wider region as a whole. The University Capital Investment Plan will ensure the University is a world class campus at the heart of Limerick and will create 1,000 jobs in Limerick. This is a great boost for the City and I look forward to work commencing in the new year. I would like to congratulate Professor Don Barry, EIB Vice President Jonathan Taylor and their respective teams on agreeing the €100 million funding from the European Investment Bank."

"The Irish economy is recovering and I see great opportunities for future EIB funded projects in Ireland. I know that this view is shared by the European Investment Bank. Both the Bank and my Department have redoubled their efforts in recent years to enhance engagement and increase lending for crucial investment in a range of sectors in Ireland. It has been nearly 30 years since UL first borrowed from the EIB and today's announcement is an excellent example of the type of flagship project that collaboration with the EIB can deliver for Ireland."

Other highlights of the UL Capital Development Plan, which will roll out over five years, include:

- The Glucksman Library Phase 2 will double the size of the current library facility with a dedicated climate controlled Special Collections Unit
- a dedicated purpose built Team Training Centre for the Munster Rugby Team
- A second 25m pool incorporating a Diving Pool as part of an extension to the University Arena
- A Pitch Development project which will see the development of 6 state-of-the-art floodlit grass training pitches
- The Bernal Building currently under construction which will further strengthen the University's Science zone along with
- Phase 2 of the Materials and Surface Science Institute which consists of a 2,750m^2 extension currently under construction
- A new student centre building including meeting rooms, social areas, Students Union facilities, shops, cinema, concert facilities and a Visitor Centre incorporating the University reception and offices.

Off-Campus Projects

The University is currently undertaking the investigative phase of an initiative to construct student accommodation in Limerick city centre. This is being developed in collaboration with the city authorities and currently involves up to 400 student-bedroom units. This project may rise in scale to a 1,000 bed facility in partnership with other Higher Education institutions in the city subject to feasibility and funding. The University is also committed to developing a significant academic facility in the city centre

area which is projected to involve teaching and related infrastructure for a student population of approximately 500, with associated staff and support services. The construction of a Clinical Education Research Building on the site of University Hospital Limerick is also part of the plan to support collaboration, knowledge exchange and active engagement with the clinicians and the hospital administration and the University. The Graduate Entry Medical School (GEMS) at the University of Limerick now has over 80 students on Clinical Placement at the campus of the lead teaching hospital, University Hospital Limerick. The development of GEMS requires a Clinical Education and Research Building on the campus of University Hospital Limerick. This development will enhance the delivery of the medical programme and the implantation of the University's health research strategy which aims to inform an equitable, safe, sustainable and patient-centred healthcare system.

Over the last five years the European Investment Bank has provided more than €559 million for long-term investment in Irish education. This includes support for investment in 105 schools across the country, campus development at UCD and new research facilities at Trinity College.

UL RESEARCHER AWARDED €270,000 TO INVESTIGATE THE BENEFITS OF PHYSICAL ACTIVITY FOR PATIENTS WITH MULTIPLE SCLEROSIS

University of Limerick Physiotherapist, Dr. Susan Coote has been awarded €270,000 by Ireland's Health Research Board (HRB) to investigate the benefits of physical activity for people with Multiple Sclerosis.

Dr. Susan Coote

Multiple Sclerosis is a chronic progressive condition of the central nervous system. It is characterised by symptoms such as weakness, sensory and vision problems, and fatigue which can ultimately lead to problems with balance and mobility. Fifty percent of people with MS will need a walking aid within 15 years of diagnosis.

Dr. Coote explaining the significance of this research added; "We know that physical activity can have major benefits for MS patients, the key is trying to embed this activity as a core part of their daily life. This project is unique in that it combines a programme of physical activity coupled with behavior change interventions to enable patients to remain physically active into the future."

Dr. Coote added; "Over 10,000 people in Ireland are living with MS. The majority of these patients are treated in the primary care settings. For physiotherapists working in primary care, exercise and physical activity interventions form the cornerstone of our treatments. This research will be particularly useful in guiding physiotherapists in the best way to deliver exercise interventions in the primary care setting."

This project is one of four University of Limerick research programmes which were awarded a total of €1.2 million from the Health Research Board. It will take a multi-disciplinary approach to this problem, bringing together psychology, sports science and physical therapy expertise from the University of Limerick together with collaborators at MS Ireland and University of Illinois at Urbana-Champaign.

FOUNDATION CHAIR OF MEDICINE CALLS FOR GREATER EMPHASIS ON RESEARCH AT UHL AT INAUGURAL SYMPOSIUM

The Inaugural Research Symposium organised by University Hospital Limerick (UHL) recently took place at the Strand Hotel, Limerick. The one day conference covered topics from healthcare reform to surgical innovations.

Conference organiser, Professor Austin Stack, Foundation Chair of Medicine, University Hospital Limerick, Graduate Entry Medical School, University of Limerick said; "the response and enthusiasm for this inaugural research symposium was unprecedented with over 200 submitted abstracts, 176 posters, and 18 oral presentations and expert talks from 5 national and international speakers. Our first symposium here at UHL is a landmark event, bringing together research talent from across the hospital and University campus, supporting innovative science, and providing a forum for interaction and communication."

Professor Austin Stack, Foundation Chair of Medicine, University Hospital Limerick and Organiser of the Inaugural University Hospital Limerick Research Symposium

"It was a great opportunity to profile the breadth and depth of research activity in clinical departments, sub-specialties, primary care and allied health disciplines," said Professor Stack and "this forum should serve as a catalyst for research collaboration in the Mid-West Region."

Professor Austin Stack, Foundation Chair of Medicine, University Hospital Limerick, Dr. Áine Carroll, National Director of Clinical Strategy and Programmes, Health Services Directorate and Professor Niall O'Higgins, Chairman of UL Hospitals Trust

The symposium attracted over 250 attendees from research, healthcare and industry sectors. The speakers included Dr. Áine Carroll, National Director of Clinical Strategy and Programmes, Health Services Directorate; Professor Niall O'Higgins, Chairman, UL Hospitals Trust; Professor Peter Blake, Professor of Medicine, University of Western Ontario and London Health Sciences Centre; Professor Alison Perry, Chair of Clinical Therapies, UL and Dr. Teresa Maguire, Head of Population Health, Health Research Board (HRB).

The welcome address was given by Professor Niall O'Higgins, Chairman of UL Hospitals Trust. Commenting on UHL's symposium, he said, "The UL hospitals have been aligned successfully into a coherent entity. Now affiliated to the University of Limerick the hospitals are developing rapidly as academic centres. With such progress comes the obligation to participate in research. Research effort is of huge importance in improving the care of patients. The success of the Inaugural Annual Research Symposium of University Hospital Limerick demonstrates that collaboration between the hospital and the university is strong. A high degree of research expertise is in place. It is hoped that the Annual Research Symposium will provide clear proof that standards of research and education continue to rise and will bring with them improvements in patient care. With continued co-operation the UL Hospitals are well-placed to become among the best academic medical centres in the country."

Professor Austin Stack, Conor Dempsey, MSD Ireland, Professor Peter Blake, Professor of Medicine at the University of Western Ontario, Ronan Collins, MSD Ireland

Key invited speaker Professor Peter Blake, Professor of Medicine at the University of Western Ontario, London Health Sciences Centre in Canada highlighted the challenges and opportunities in building research programmes, and chronicled the success of epidemiological, and health outcomes research at his institution. National Director of Clinical Strategy and Programmes, Dr. Áine Carroll focused on the changing face of the HSE and current developments that are focused on quality improvement and patient-centred care. The leadership role of the Health Research Board (HRB) in supporting health research in Ireland and emerging funding opportunities was discussed by Dr. Teresa Maguire, Head of Population Health Research.

Professor Pierce Grace, Chief Clinical Director, UHL said; "This is a fantastic day for UL Hospitals. We aim to be one of the top three university hospitals in Ireland by 2018 and strategically we see excellence in research as one of the ways that we will achieve that goal. This symposium has brought together the UL Hospitals community around research and it is staggering to see the number and quality of projects presented here today. With our academic partner, UL we will promote research across our directorates and this symposium will become an important annual event in our calendar."

Professor Michael Larvin, Head of UL's Graduate Entry Medical School said: "The recent inaugural joint Research Symposium marks a closening of the relationship between UL and our HSE partners, in line with the recommendations of the Government's Higgins Report launched earlier this year. The symposium has, for the first time in Limerick, brought together academic and clinical staff, junior and senior, across the entire range of disciplines involved in healthcare research. The Medical School is proud of Professor Stack's initiative in bringing this about, and we look forward to supporting the symposium as an annual event in future. UL is delighted to have been selected as academic partner to the new hospital group for our region. Together we are committed to achieving the highest standards of safe healthcare for patients, and high-quality collaborative research is essential to ensure this."

Awards were presented to the best oral and poster presentations from three major categories: Technology and Health, Lifestyle and Health and Population Health Research.

UL PROFESSOR OF HEALTH ECONOMICS LEADING €1.5 MILLION PERSONALISED HEALTH RESEARCH PROGRAMME

Leading Health Economist, John Forbes, has been appointed as Professor of Health Economics at the University of Limerick. His appointment has been supported by the Health Research Board (HRB). Professor Forbes becomes one of the first HRB Research Leaders and he will lead a €1.5 million programme of research into the economics of personalised health.

Professor John Forbes

Professor Forbes explains the significance of an economic perspective on personalised health; "Advances in science have increased the prospect of diagnosing, treating and preventing illness in a more personal way. Improved understanding of how individuals may benefit from tailored therapies will permit a better match and more informed choice by users and healthcare professionals. Opportunities to design and deliver better services that are sensitive to the needs of particular groups are widespread."

"This research programme will develop and apply better ways of assessing the health and economic consequences of new and existing health technologies where personalised care is feasible and desirable. The economic and health issues are genuine and deserve the application of modern methods used by economists to determine ways of improving health and welfare in Ireland. This research will aim to strengthen public interest in personalised health so that the positive effects of investing in these innovative approaches will be shared more wisely and fairly for everyone."

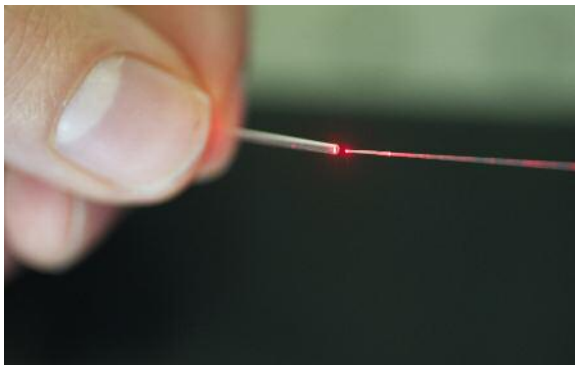
According to Enda Connolly, Chief Executive at the Health Research Board; "Personalised medicine is an emerging field which shows great potential, but patients, health professionals and policy makers need to be able to weigh up the costs and benefits of participating in such interventions. Our investment in Professor Forbes' work programme will help provide reliable evidence to underpin decision making around personalised medicine. Given the shortage of health economists globally engaged in this area, the appointment of Professor Forbes as a HRB Research Leader in Ireland is a significant development."
Dr. Mary Shire Vice President Research at UL welcomed the announcement; "Now more than every as a society we appreciate the need for, but also the costs of, the provision of innovative health technologies. Professor Forbes brings a very relevant skill set that will enhance our understanding of the economics of making these innovative and potentially lifesaving technologies available to patients. His appointment will support the Universities commitment to enhancing the health service provision in Ireland."

Professor Michael Larvin, Head of the Graduate Entry Medical School, UL welcomed Professor John Forbes' appointment; "Health Economics has recently taken on greater importance, given the rising trend towards more effective personalised healthcare as well as the planned reorganisation of Irish health services. I am certain that Professor Forbes will make a tremendous contribution to health service research across UL and our HSE partners, as well as more widely. We are extremely fortunate to have attracted a researcher of such calibre and experience to the University."

Dr. Philip O'Regan, Dean, Kemmy Business School, UL is delighted that Professor Forbes is being recognised with a HRB Leaders Research Award. "His work reflects the synergies that exist between education and health sciences and business in the health economics area and his success contributes to the university's overall research strategy in an area of key national and international significance".

UL LICENSES OPTICAL FIBRE PRESSURE SENSING TECHNOLOGY WHICH WILL BE USED TO IMPROVE DETECTION OF CORONARY BLOCKAGES

The University of Limerick (UL) recently licensed a ground breaking new technology based on optical fibres to the Galway based medical devices company, Pointec Medical Ltd. The technology can be used to better inform physicians on the appropriate intervention for vascular disorders such as coronary artery stenosis (narrowing of the arteries). Developed by UL researchers, the optical fibre technology is thin enough to be threaded through the arteries of the human body and can take pressure and temperature readings within the arteries themselves.



Somewhat similar devices are currently used to perform a procedure called Fractional Flow Reserve diagnostics, in order to assess whether it is appropriate to implant a stent or to treat arterial blockages through other means. However, many of the currently available technologies, which are used in this procedure, have potential limitations in terms of their accuracy and stability.

The patent pending technology has already undergone significant evaluation testing at labs in Ireland and North America. The estimated market value for this pressure wire technology is €200 million a year and growing at a rate of 40% per year.

Co-inventor, Dr. Gabriel Leen said; "The fibre optic based temperature and pressure sensor technology has the potential to significantly improve the quality of coronary diagnostics and provide cardiac surgeons with a powerful tool to accurately assess the level of arterial blockages in

order to determine the most appropriate treatment for patients."

Company director, Alan Crean, Pointec Medical Ltd. said; "We are delighted to be able to work with the team of researchers in UL who have developed a great technology with a huge market potential".

"We are very pleased to be in a position to partner with a company like Pointec Medical Ltd." said Paul Dillon, Technology Transfer Director, UL, "We are very keen to see our research have an impact in the marketplace." In the past 5 years UL research has resulted in 107 new inventions, 34 patent applications, 31 commercialisation agreements with industry and 7 new spin-out companies. UL continues to be one of the top Irish universities in translating research investment into marketable products and services.

The optical fibre pressure and temperature sensor technology was developed at the Optical Fibre Sensor Research Centre (www.ofsrc.ul.ie), University of Limerick by a research team led by Professor Elfed Lewis in collaboration with Hochschule Wismar, University of Applied Sciences, Germany.

UL STUDY AIMS TO IMPROVE DIAGNOSIS AND TREATMENT OF TERMINAL PATIENTS EXPERIENCING DELIRIUM

85% of Patients Experience Delirium during the Terminal Phases of Illness

University of Limerick (UL) researchers have been awarded €175,000 to undertake research which aims to improve diagnosis and management of delirium, dementia and depression among palliative care patients. This research is funded by the Health Research Board (HRB) and the All-Ireland Institute of Hospice and Palliative Care (AIIHPC).

Principal Investigator and Professor of Psychiatry at UL, David Meagher explains the significance of the research; "Previous research has found that 85% of patients experience delirium during the terminal phases of illness. Unfortunately, many of these cases go undiagnosed and we know that particularly among elderly patients, the risk of mortality increases by 11% for each additional 48 hours of delirium experienced."

Professor David Meagher

"This has been an underestimated problem for some time and denies patients and their families of precious final 'real' contact during their illness. Medicine has largely focused on treating the problem of terminal pain but there is a need to focus on the impact delirium and other causes of cognitive impairment have for palliative care patients."

Through the Cognitive Impairment Research Group (CIRG) based at the Centre for Interventions in Inflammation, Infection & Immunity (4i), UL, Professor Meagher and his team will focus on identifying early indicators of emerging delirium using technology to develop tools which will allow more consistent detection of delirium.

The study involves significant collaboration with Dr. Karen Ryan, of Mater Misericordiae Hospital and St. Francis Hospice, and forms a part of the wider multidisciplinary Palliative Care Research Network supported by funding provided by the Irish HRB, Northern Ireland Public Health Agency, Irish Cancer Society and the Atlantic Philanthropies.

Director of the Centre for Interventions in Inflammation, Infection & Immunity (4i), UL, Professor Colum Dunne, said "this study builds on ongoing work, also funded by the HRB, which is developing novel software applications to enable bedside assessment of cognitive impairment. By extending the boundaries of these developments in this new study, Professor Meagher and his colleagues are translating sophisticated technological developments into tangible advances that will allow rapid, effective, standardised and uncomplicated assessment of delirium. This innovation is especially relevant to the hospice and palliative care setting."

UL RESEARCHERS AWARDED €1.2 MILLION IN HEALTH RESEARCH FUNDING

University of Limerick (UL) researchers have been awarded over €1.2 million funding by Ireland's Health Research Board. The funding will support health research focused on; Primary Care reform in Ireland; avoidance of adverse outcomes in vascular surgery; dealing with the progression of chronic kidney disease and enhancing physical activity for Multiple Sclerosis patients. The overarching aim of the research is to improve patient care and health outcomes.

Dr. Mary Shire, Vice-President Research, UL said; "Health research at the University of Limerick has the patient at its centre. We are working in partnership with health service providers, community organisations and industry to enhance the health of Irish people and support the adoption of innovative approaches to health service delivery. This HRB funding is an important validation of the significance this research has for patient care and healthcare reform in Ireland."

The funding has been allocated to four Principal Investigators at UL:

Professor Austin Stack, Chair of Medicine UL and Consultant Nephrologist at Limerick University Hospital: *'Assessing the burden and progression of chronic kidney disease in the Irish Health System.'*

Dr. Susan Coote, University of Limerick, *'Enhancing Physical Activity Behaviour in People with Multiple Sclerosis.'*

Professor Anne MacFarlane, Chair of Primary Healthcare Research, Graduate Entry Medical School: *'Primary Care reform in Ireland – An analysis of 'top down' and 'bottom up' innovation.'*

Professor Stewart Walsh, Professor of Vascular Surgery, UL and Consultant Vascular Surgeon, University Hospital Limerick: *'Preconditioning shields against vascular events in surgery (Preconditioning SAVES): A multi-centre feasibility trial of preconditioning against adverse events in major vascular surgery.'*

UL RESEARCHER AWARDED €1.5 MILLION TO INVESTIGATE INNOVATIVE THERAPIES FOR OSTEOPOROSIS

UL researcher, Dr. David Hoey was announced as one of the recipients of the highly prestigious European Research Council (ERC) starting grants. Dr. Hoey has been awarded €1.5 million to pursue cutting-edge fundamental research into developing innovative treatments for bone-loss diseases such as osteoporosis. Every 30 seconds a person suffers an osteoporosis-related hip fracture in the EU. This devastating injury can lead to years of costly treatment and in some cases it is fatal.

Dr. David Hoey

Dr. Hoey, who was recently appointed by the Mechanical, Aeronautical and Biomedical Engineering Department and whose research is based at the Material and Surface Science Institute (MSSI) at UL focuses on determining how physical loading, such as walking and running around, helps to maintain a healthy skeleton. Current treatments for osteoporosis attempt to stop bone loss but have been linked to severe side effects. However, we know that exercise can promote a healthy skeleton through bone formation.

Dr. Hoey explains; "The human skeleton contains stem cells, residing within our bones. My research will focus on the stem cell primary cilium, which is an antennae-like structure that extends from the surface of these cells. This 'antenna' is required for stem cells to sense a physical load enabling the cell to change into a bone-forming cell and replace the lost bone. Understanding how this process works will enable us to mimic the beneficial effect of physical loading using newly developed drugs and therapeutics and will lead to innovative treatments for bone-loss diseases, such as osteoporosis."

Dr. Mary Shire, Vice-President Research, University of Limerick welcomed the announcement; "This is a huge accolade for any young researcher and this year, Dr. Hoey is one of only two Irish-based researchers to receive an ERC starting grant. The University of Limerick research community is dynamic, innovative and pioneering and the establishment of a team in the field of bone-loss research will no doubt bring vital medical developments for patients and patient care in the future."

University of Limerick is one of two Irish institutions to receive this ERC award and have faced tough competition for these grants as the call attracted 3,329 proposals in total which represents a 50% overall rise in demand for the grants this year. The call was also the last under the EU's Seventh Framework Programme (FP7). However new calls are foreseen under Horizon 2020 and a major increase in funding levels are expected for the ERC.
Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn said: "The European Research Council has changed the research landscape for young talent, and raised the level of science across Europe. It is funding blue-sky research that is advancing human knowledge, but also producing breakthroughs that could make their way into our daily lives in future. The ERC is now an established label of excellence, and it will go from strength to strength under Horizon 2020."

2013 SYLVESTER O'HALLORAN SURGICAL MEETING LIMERICK.

The 21st Sylvester O'Halloran meeting took place in the newly opened Graduate Entry Medical School building at the University of Limerick on March 1st and 2nd, 2013. This year's meeting saw Professor Graham Layer, Consultant Breast/General Surgeon, The Royal Surrey County Hospital delivering an excellent lecture on cancer surgery and training, touching on many aspects of surgery and training in Ireland.

Professor Niall O'Higgins, Professor Emeritus of Surgery, UCD, delivered a brilliant and insightful Sir Thomas Myles Lecture this year, with emphasis in particular on new developments and future potential in the Mid-West region.

New additions to the programme of this year's meeting were the ASGBI best published paper prize awarded to Dr. Peter O'Leary, Department of Academic Surgery, Cork University Hospital. Dr. Peter O'Leary was also successful in winning this year's Sylvester O'Halloran prize for best research presentation in the plenary session. The poster prize was won by Dr. Siobhan O'Leary, Postgraduate Researcher, Department of Mechanical, Aeronautical and Biomedical Engineering, University of Limerick.

The Surgical Masterclass was well attended and the interactive Multi-Disciplinary Meeting generated much

enjoyable debate amongst participants. Parallel meetings this year included the Irish Association of Vascular Surgeons meeting held in conjunction with the Sylvester O'Halloran Meeting, and organised by Mr. Eamon Kavanagh, Consultant Vascular Surgeon, Limerick, which included lectures and practical skills.

Professor John Fenton, and Mr. Neville Shine organised the successful Annual Facial Plastics Course, and this was followed by the head and neck session of presented papers. This year's ENT lecturer was Mr. Nico Jonas, Consultant ENT Head and Neck Surgeon, The Evelina Children's Hospital, London who delivered an enjoyable lecture. Dr. Ronan Glynn, Children's University Hospital, Temple St. Dublin, and Dr. Vincent O'Dowd, University Hospital Limerick were the prize winners of the oral presentations.

The orthopaedic prizes were awarded as follows:
Orthopaedic 1st Prize to Dr. Ali Abdulkarim, Deptartment of Orthopaedics, Cappagh National Orthopaedic Hospital, Finglas, Dublin 11.

Orthopaedic 2nd Prize to Dr. Emmet Thompson, Tissue Engineering Research Group, Department of Anatomy, RCSI, 123 St. Stephen's Green, Dublin 2.

Orthopaedic Poster Prize to Dr. Tanya Yahoudzik, Department of Orthopaedic Surgery, University Hospital Limerick, by the orthopaedic sessions' organiser Mr. Dermot O'Farrell, Consultant Orthopaedic Surgeon, Limerick.

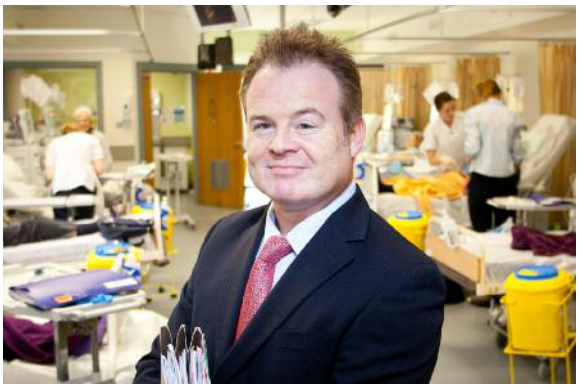
The Anaesthesia papers were presented on Saturday and the prize winners were
Dr. Aoife Doolan, Department of Anaesthesia and Intensive Care, St. Vincent's University Hospital, Elm Park, Dublin who won the O'Shaughnessy Prize, and Dr. Greta Gormley, Department of Anaesthesia, University Hospital Limerick, who won the Anaesthesia Poster Prize.

Overall, the meeting was well attended and much enjoyed by the many participants and attendees. Planning is underway for next year's meeting, with an extended teaching programme.

UL RESEARCHERS FIND DEATH RATES FALLING IN DIALYSIS PATIENTS DESPITE RISING CORONARY ARTERY DISEASE

Death rates among dialysis patients are decreasing despite a rising burden of coronary artery disease (CAD), new findings show. Better cardiovascular care in the general population prior to dialysis could explain, in part, the decline in mortality, researchers speculate.

Professor Austin Stack, of the University of Limerick (UL) Graduate Entry Medical School and colleagues evaluated changes in the patterns of coronary artery disease prevalence and associated mortality in 823,753 incident dialysis patients from 1995-2004 in the US.



Professor Austin Stack

Prevalence

They found that the overall annual prevalence of CAD at dialysis initiation increased significantly from 23.7% in 1995 to 27.6% in 2004. According to Professor Stack, increases in the overall burden of clinical coronary artery disease were observed for men and women and across almost all race groups. In men, the prevalence increased significantly from 25.2% to 29.7% among men (peaking at 30.1 in 2001) and from 22.1% to 25.1% among women (peaking at 25.3 in 2001) and these findings would be consistent with the increasing acceptance of older patients with higher burden of overall co-morbid disease putting them at higher risk of death.

What is very interesting according to Dr. Liam Casserly, Consultant Nephrologist and senior author of the paper, "is that not only does it highlight the tremendous burden of coronary disease in the very vulnerable population, but it also shows that substantial differences exist in prevalence and longitudinal trends over time among sex and race groups in the US."

"Black men and women had the lowest prevalence of coronary disease, while white men and women had the highest prevalence of disease although in each of these groups a rising burden of disease was observed over time," he said. From 1995 to 2004, the prevalence increased significantly from 28.7% to 32.4% among whites and from 14.3% to 17.5% among blacks.

Mortality

"Despite the high burden of CAD at dialysis initiation, adjusted mortality rates have fallen over time and this is a very welcome development," according to Professor Stack, Consultant Nephrologist, University Hospital Limerick and Chairman of Medicine at the University's Graduate Entry Medical School.

Death rates (per 1,000 person/years) among men rose from 352 in 1995 to 379 in 1997 and then decreased to 248 in 2004. The rates among women increased from 366 in 1995 to 396 in 1999 and then declined to 357 in 2004. The researchers found significant reductions in mortality with advancing calendar year among White, Asian, and Native American men and White and Native American women, but no significant changes in mortality for Black

men and women. The findings of this study, published in the American Journal of Nephrology (2013;38:66-74), is the first report on longitudinal assessment of trends in prevalence and mortality of coronary disease in the US dialysis population.

"Most deaths that occur following dialysis initiation are cardiovascular in origin and so it is essential that we evaluate time trends in mortality to assess the efficacy of conventional treatment practices," said Professor Stack." The current study does show that very modest improvements have occurred in survival of this high-risk population with CAD despite advancing age and worsening co-morbidity profiles." However, it also shows very clearly that substantial differences exist across race groups, which require detailed further exploration.

As to what would explain falling mortality rates despite increasing CAD burden, we can only speculate said Dr. Stack. "Improved effectiveness of cardiovascular surveillance and treatments in the general population prior to dialysis as well as advancements in clinical care delivery after initiation," are possible considerations. There is evidence from our study that improvements in pre-dialysis care have occurred over the previous 10 years. "Successive incident cohorts experienced significantly higher haematocrit values and had greater proportions on erythropoietin therapy at initiation," they wrote. The mean haematocrit value increased significantly from 27.9 in the 1995 cohort to 30.5 in the 2004 cohort. In 1995, 21.8% of patients who started dialysis had received pre-dialysis erythropoietin. This increased steadily to 32.8% in 2004.

"While we all welcome these findings, we should not get too complacent and take our foot of the pedal" cautioned Professor Stack. "The mortality rates for patients with CAD who reach end-stage kidney disease remain unacceptably high and much work needs to be done. The implementation and quality assurance of evidence-based cardiovascular guidelines remains an important goal for all health professionals who care for these patients with advanced kidney disease in order to achieve better outcomes."

The study 'Declining Mortality Rates despite increases in Clinical Coronary Artery Disease among US Dialysis Patients: A National Registry Study' is published by the American Journal of Nephrology and authored by Stack, A.G, Neylon, A.M., Abdalla, A.A., Hegarty, A., Hannigan, A., Cronin, C.J., Nguyen H.T., Casserly L.F. Departments of Nephrology and Medicine, University Hospital Limerick, Graduate Entry Medical School, University of Limerick and Mater University Hospital, Dublin, Ireland.
http://www.karger.com/Article/Pdf/353103

The Graduate Entry Medical School is leading a number of national and international projects to evaluate the health status and clinical outcomes for patients with chronic disease in order to improve patient outcomes. The study was performed at the Graduate Entry Medical School in collaboration with the Departments of Medicine and Nephrology, University Hospital Limerick.

UL RESEARCHERS RECEIVE FUNDING TO DEVELOP EXOSKELETON FOR INDUSTRIAL USE

A University of Limerick research team have been awarded funding as part of a €5.8 million EU project. The project 'Robomate', aims to develop an exoskeleton for industrial applications. The UL research team have been awarded €480,000 to support their study on human-robot interaction for high frequency manual handling to minimise the risk of lower back injury in industry.

Dr. Leonard O'Sullivan, lead researcher explains the significance of this study; "About 44 million EU workers are affected by work related musculoskeletal disorders every year, with an annual cost in excess of €240 billion euro to the European economy. The Robomate project aims to develop an exoskeleton for use in the workplace and in turn reduce back injury. Our team has extensive expertise in ergonomics and occupational health research, which, combined with our expanding research expertise in product design will determine key technology advances for the exoskeleton.

Dr. Leonard O'Sullivan, University of Limerick, Lead Researcher on a Study on Human-Robot Interaction for High Frequency Manual Handling to Minimise the Risk of Lower Back Injury in Industry

The European Foundation for Living and Work Conditions reports that 65% of workers perform lifting and carry loads for at least a quarter of their normal work time. Work related low back pain and injuries are the most common musculoskeletal disorders; these are directly related to frequent manual handling of heavy loads.

The UL research team is a collaboration between the Human Factors and Product Design Research Group and the Centre for Physical Activity and Health Research. Dr. Leonard O'Sullivan is Co-Director of the Enterprise Research Centre and Lecturer at the Department of Design and Manufacturing Technology, University of Limerick.

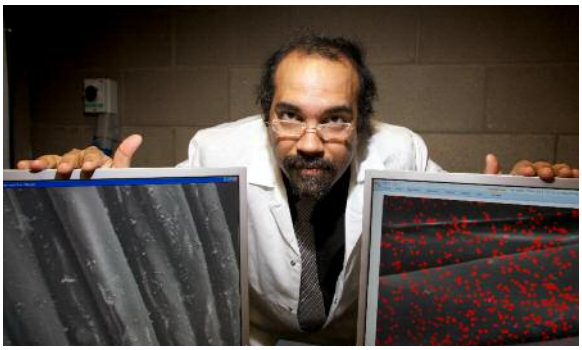
The Robomate project, 'Intelligent exoskeleton based on human-robot interaction for manipulation of heavy goods in Europe's factories of the future' is co-ordinated by Zurich University of Applied Science and involves 11 industry and academic partners from across Europe. The project is funded under Framework Programme 7.

RESEARCHERS DESIGN NEW MEDICAL ALLOY WITH HIGHER X-RAY VISIBILITY

The new invention will be of huge significance in the production of minimally invasive surgical devices - an industry which is estimated to be worth from €17-€26 billion in 2015/2016.

Scientists and engineers from the Materials and Surface Science Institute (MSSI) at the University of Limerick have invented a new metal that will make medical devices inside the body more visible under X-ray. The team has developed a revolutionary metal alloy from which medical devices can be constructed to make them fully visible under X-ray, thereby significantly positively affecting patient outcomes and recovery times. The research was conducted through an Innovation Partnership between the University of Limerick and the international medical devices company COOK Medical, which was supported through the Enterprise Ireland Innovation Partnership Programme.

Many medical devices, such as stents and valves which are placed in the body through minimally invasive surgical procedures significantly reduce patient trauma and hospitalisation time. These procedures are usually carried out with the help of some kind of medical imaging such as X-ray fluoroscopy so that a surgeon has clear visibility of where the device is placed. A fundamental problem with current materials used for making these devices is that they do not show up very well under X-ray. The problem becomes even more acute when the size of the medical device becomes smaller. Using X-ray visible markers is a less than optimal solution.



Dr. Syed Tofail, MSSI, University of Limerick

'An ideal solution is a device that is fully visible under the X-ray' said Dr. Syed Tofail, Lead Scientist of the UL research team 'but the alloy would have to be developed based on the currently approved alloys for medical devices. Up to now many companies have used gold or platinum to modify existing alloys, which improve x-ray visibility but are very expensive. We have identified a number of alloying elements that will make these devices as visible as those where platinum has been added to enhance the visibility, but at a significantly reduced cost'.

'Tests on a prototype wire of the newly developed alloy have shown its potential for use in a number of COOK products' said Mr. Shay Lavelle, the Lead Investigator from COOK Medical. The global market for minimally invasive surgical devices is estimated to reach the level of €17 to €26 billion in 2015/2016. 'The fact that the raw materials are more viable than the platinum added solutions also means that the commercialisation potential of this newly developed alloy is very high,' he added.

Bill Doherty, Executive Vice President of COOK Medical for Europe, Middle East and Africa and the Managing Director of the Irish operation, expressed his delight on the success of the Enterprise Ireland Innovation Partnership between COOK and UL; "This project is a good example of the strength of UL in translational research where research strongly impacts the industrial community. Building on Enterprise Ireland's support, UL and COOK's ability to work closely together, will be extremely helpful in implementing this breakthrough technology into commercial products that benefit patients worldwide."

Professor Noel O'Dowd, MSSI Director, notes that the project builds on MSSI's experience in developing new materials for industrial applications. MSSI's materials' design and processing capability and the state of the art infrastructure for materials' characterisation have been critical in developing this ground breaking alloy. The success of this research shows a high return on investment made by the Irish government both on commercialisation of research and the research infrastructure.

COOK Medical is the largest privately owned medical device manufacturer in the world. The Irish factory is based at the National Technology Park, Limerick employing almost 800 people as part of a worldwide Cook Medical workforce of over 10,000.

NEW MATHEMATICAL TECHNIQUE WILL ENABLE MUCH FASTER PREDICTION OF INFECTIOUS DISEASE SPREAD

Will I get infected or not in a disease epidemic? Should I open a Facebook account or not? Which of the two presidential candidates should I vote for in an American federal election? Under what conditions does my choice or opinion become the popular one? The answer to each of these questions depends not only on the individual in question, but also crucially on their social or physical contacts with other individuals. University of Limerick researcher, Professor James Gleeson recently published findings in which he has developed a new mathematical technique to predict social phenomena in large populations.

Professor James Gleeson

Professor Gleeson explains: "Contagion can happen in many different contexts, from disease spread to viral marketing. Mathematical modelling is important to help understand the mechanisms that drive contagions on networks. The increasing availability of data from social online networks can now give a lot of information about how humans influence each other, but fast and accurate mathematical techniques are crucial to help process the flood of data."

Understanding human interaction is crucial to formulating social trends. The correct mathematical model can be used to predict a range of scenarios from voting models to infectious disease spread across populations.

Analytical methods for tackling models whether they are voting trends or disease spread are few and often not accurate. Some models can achieve high accuracy but at the cost of computational complexity. In this paper, Professor Gleeson presents a low-complexity approach, called pair approximation, and demonstrates that for certain classes of local decision rules, this formula can achieve results as accurate as the traditional high-complexity approach. To facilitate the spread of its use, the Mathematics Applications Consortium for Science and Industry (MACSI) have made the computational code freely available to download.

Professor Gleeson is the co-director of MACSI at the University of Limerick. This research is funded by Science Foundation Ireland. Professor Gleeson's paper 'Binary-State Dynamics on Complex Networks: Pair Approximation and Beyond' is published in the open-access journal Physical Review and is available for free download from the American Physical Society.

UL CELEBRATES CONFERRING OF 141 STUDENTS OF MEDICINE & CLINICAL THERAPIES

UL President highlights importance of links to local and regional health services

The University of Limerick celebrated the graduation of 141 students recently from the Graduate Entry Medical School (GEMS) and Clinical Therapies Department. Among the graduates 88 doctors were conferred with their medical degrees as they became the third graduating class of the Graduate Entry Medical School at the University of Limerick. Fifty-three Clinical Therapies graduates received their awards - 29 from the MSc in Occupational Therapy and 24 from the BSc in Physiotherapy.

Graduate Entry Medical School and Clinical Therapies Graduates

Established in 2007, the Graduate Entry Medical School Programme at UL is open to graduates from any discipline and employs practical and interactive approaches to learning.

Among the doctors who graduated at UL are students with undergraduate degrees varying from physiotherapy, pharmacy to biological engineering and teaching. The programme is also the only medical education programme in the country founded on the modern pedagogical principle of Problem Based Learning (PBL). PBL encourages team-working and self-directed enquiry, both skills being vital for their future careers in the fast moving world of medicine.

Speaking at the conferring ceremony Professor Don Barry, UL President, said; "As part of our strategic commitment to our community, the University is closely linked to our local and regional health services. The recently launched Higgins Report on hospital regionalisation has acknowledged the University as the academic partner of the Mid-West Hospital Group. I'm delighted to have been asked to be a member of the newly formed Hospital Group Board and look forward to the establishment of the Group as an independent Trust in the not too distant future."

Professor Michael Larvin, Head of the Graduate Entry Medical School, UL said; "The school is thrilled to witness today the graduation of its third and largest cohort to date. Our students have worked exceptionally hard to cover in 4 years what others accomplish in 5 to 6 years in more traditional medical courses. They have completed a state-of-the-art course, to which they have contributed their own prior academic achievements, diverse life experiences, maturity and drive. We expect them to make a major impact on improving patient care after taking up their first posts in Ireland, Canada and the USA next month."

Professor Alison Perry, Head of the Department of Clinical Therapies said; "Graduates in Physiotherapy and Occupational Therapy from Clinical Therapies at UL are attractive to employers worldwide, and many of our past students now work both in Ireland and overseas, across a variety of education and health sectors. Employers have commented that UL graduates from the Department of Clinical Therapies are well-prepared, are able to adopt new methods and new ways of thinking, and that they are good 'team members.' We believe that our plans to enhance inter-disciplinary teaching and learning in our new curriculum will enhance these skills and will promote good team working in our graduates, giving them a competitive advantage in the constantly challenging worlds of healthcare and therapeutics."

UL MEDICAL SCHOOL RESEARCHERS FIND INCREASED DEATH RISK IN PATIENTS SUFFERING FROM GOUT AND ELEVATED URIC ACID LEVELS

A new study led by researchers at the Graduate Entry Medical School (GEMS), University of Limerick (UL) has found that people suffering from gout and elevated serum uric acid have significantly increased risks of death. In their study, individuals with a diagnosis of gout experienced a 42% higher risk of death from all causes and a 58% higher risk of cardiovascular death. The risks were greatest for individuals with the highest uric acid concentrations.

In the study, Professor Austin Stack, Professor and Chair of Medicine, UL and colleagues examined the relationships of gout and serum uric acid with mortality over a 10 year period in 15,773 individuals from the Third National Health and Nutrition Examination Survey (NHANES III).

Professor Austin Stack

"Most published studies to date have not looked at the combined impact of gout and elevated uric acid concentrations on the risk of death in representative samples of the population" according to Professor Stack a Consultant Nephrologist at University Hospital Limerick and the lead author of the study.

"In this nationally representative study we set out to examine in detail the risks conferred to individuals who had a diagnosis of gout and who had elevated serum uric acid levels and the results were quite extraordinary."

"First, we found that individuals with a diagnosis of gout had a great abundance of many known cardiovascular conditions and risk factors such as diabetes, hypertension, physical inactivity, obesity and smoking. These would certainly put individuals into a high risk category. But even when we took these factors into account, individuals in the study with gout died earlier than those without and also experienced a higher risk of dying from heart disease."

"We also demonstrated for the first time that the adverse impact of gout increases with rising uric acid concentration. Subjects with the highest uric acid levels experienced a 77% higher risk of death and a 209% risk of cardiovascular death," he said.

The study also demonstrated that elevated serum uric acid levels are an independent risk factor for death and cardiovascular mortality. In our study, we found that the mortality impact of elevated uric acid was present for both men and women, most races and almost all disease and lifestyle categories. "What is remarkable" said Stack "is that even among individuals considered having healthy lifestyles; for example- non-smokers; lifetime non-drinkers, and physically active people, their risk of death increased by between 9-13% for every 60 µmol/L increase in serum uric acid."

Because of its observational nature, the study does not prove that gout or elevated uric acid causes cardiovascular disease. However, it does lend further credibility to the hypothesis that gout and elevated uric acid levels are important and easily identifiable risk markers for cardiovascular disease and early death. Serum uric acid can be easily measured through blood testing and is a potentially important target for intervention not only to reduce the risk of gout but even more importantly the more serious threat of cardiovascular death. The time has come to evaluate the efficacy of treatments that lower uric acid levels in reducing cardiovascular death and preventing premature death.

Gout is an inflammatory arthritis that is due to uric acid crystal deposition in joints and typically causes acute painful swelling of one or more joints (the big toe commonly). It affects about 4% of the adult population while elevated uric acid levels can affect up to 20% according to US data. In Ireland, it is estimated that about 180,000 individuals suffer from gout (Irish population 4.59 million).

The study 'Independent and Conjoint Associations of Gout and Hyperuricaemia with Total and Cardiovascular Mortality' is published by Quarterly Journal of Medicine (QJM): An International Journal of Medicine and authored by Austin G. Stack, Alan Hanley, Liam F. Casserly, Cornelius J. Cronin, Ahad A. Abdalla, Tom J. Kiernan, Bhamidipati.V.R. Murthy, Avril Hegarty, Ailish Hannigan and Hoang.T. Nguyen
http://qjmed.oxfordjournals.org/content/early/2013/04/05/qjmed.hct083.short?rss=1

The Graduate Entry Medical School is leading a number of national and international projects to evaluate the health status and clinical outcomes for patients with chronic disease in order to improve patient outcomes. The study was performed at the Graduate Entry Medical School in collaboration with the Departments of Nephrology and Cardiology University Hospital Limerick.

SENSOR TECHNOLOGY TO IMPROVE PATIENT SAFETY IN RADIOTHERAPY TREATMENT DEVELOPED AT UL

Researchers at the Optical Fibre Sensors Research Centre, University of Limerick have developed a technology to ensure improved safety and more effective treatment for patients undergoing radiotherapy.

The research team is led by Dr. Sinéad O'Keeffe, an

internationally recognised sensor technology researcher who has been working on the development of optical fibre sensors for the past 9 years.

Dr. Sinéad O'Keeffe

Dr. O'Keeffe explains; "The sensors are smaller than current technology and so they can be placed at critical organs, e.g. lens of the eye, to ensure it is not exposed to high levels of radiation. Ensuring only the tumour, and not healthy tissue, is exposed to radiation will make the radiation treatment more effective. Many current technologies do not allow for real-time monitoring and so this technology will provide immediate information on the amount of radiation a patient has received and so improves patient safety."

She was awarded a Marie Curie Research Fellowship to develop radiation dosimeters for monitoring patient doses received during radiotherapy for cancer treatment. The project, in collaboration with the University of California Los Angeles and the Galway Clinic in Ireland, has made significant advances in the area of real-time patient monitoring during radiation treatment and a patent is currently being prepared in the area.

A graduate of the BEng in Electronic Engineering and PhD at UL, Dr. O'Keeffe was recently awarded the Institute of Electrical and Electronics Engineers (IEEE) Sensors Council Early Career (GOLD) Award. The award was presented to Dr. O'Keeffe at the recent IEEE Sensors Conference in Taiwan.

PAIN-ED - A NEW FREE ONLINE RESOURCE FOR DEALING WITH CHRONIC MUSCULOSKELETAL PAIN

Chronic musculoskeletal pain is one of the leading causes of disability in modern society. Several conditions are linked to chronic pain, including arthritis, low back pain, whiplash and fibromyalgia. Research indicates that helping people in chronic pain, understand what is happening to them, and what they can do about it, can be very effective in regaining a better quality of life. However, many people with chronic pain find it difficult to figure out where to even start their recovery. To better disseminate current best practice about managing chronic pain, a free online resource for dealing with chronic musculoskeletal pain was recently launched at the University of Limerick. This online resource was funded by the Health Research Board of Ireland. One of the founders of this online resource, Dr. Kieran O'Sullivan is a Physiotherapy Lecturer at the Department of Clinical Therapies in the University of Limerick.

Dr. Kieran O'Sullivan

He stated that "members of the public increasingly seek out information on health conditions online – not all of which is evidence-based! In fact, dispelling unhelpful myths about chronic pain is one of the key aims of Pain-Ed." He also emphasised the importance of reaching the public in as many ways as possible, highlighting that the resource is also available on Facebook and Twitter. The resource has received significant support thus far from national and international experts in the management of chronic pain.

The launch included speakers from several disciplines involved in the management of chronic pain, both nationally and internationally, as well as members of the public who have been dealing with chronic pain. The material provided online includes videos of experts in the management of chronic pain discussing their research and how people in chronic pain might benefit, as well as links to information on topics such as MRI scans, surgery, medications, exercise, mindfulness, cognitive-behavioural therapy and other treatment options. Further information will be added in the coming months.

For further information, visit www.pain-ed.com, Pain-Ed on Facebook, or @pain_eddotcom on Twitter.

DEPARTMENT OF CLINICAL THERAPIES UL LAUNCHES COMMUNITY OF PRACTICE TO PROMOTE BETTER MANAGEMENT OF SHOULDER PAIN

One in three people will experience shoulder pain at some time in their lives, and for many, this disabling condition can remain unresolved for a number of years, leading to significant sick leave and healthcare costs. A seminar at the University of Limerick on Friday April 5th, attended by over 120 physiotherapists, heard leading experts discuss the currrent research evidence regarding the management of Rotator cuff disorders, the commonest cause of shoulder pain in adults.

L-R: Eoin O'Conaire (Evidence-Based Therapy Centre, Galway), Karen McCreesh (Department of Clinical Therapies, UL), Dr. Jeremy Lewis (University of Hertfordshire, UK), Mr Ross Kingston (Bon Secours Hospital, Tralee)

Dr. Jeremy Lewis, a highly regarded expert in shoulder research and clinical practice, discussed the challenges in diagnosing shoulder tendon problems and proposed an evidence-based rehabilitation programme which has been successful in alleviating shoulder pain and disability and reducing the need for surgical interventions. Mr. Ross Kingston, Consultant Orthopaedic Surgeon from the Bon Secours Hospital in Tralee, discussed advances in surgery for people with tears of the rotator cuff, while Eoin O'Conaire (Evidence-Based Therapy Centre, Galway) presented the state of the art with regard to the use of injections for managing painful shoulder conditions.

A new Community of Practice for Physiotherapists was launched, which aims to facilitate sharing of knowledge and expertise between practitioners managing people with shoulder pain. "Shoulder pain is a very common and debilitating condition for many people, and can often be quite challenging for physiotherapists to treat. This seminar and Community of Practice will provide a forum for therapists to interact and share their knowledge, as well as to develop innovative ways of managing this costly healthcare problem" says Karen McCreesh, (Department of Clinical Therapies, UL) leader of the Community of Practice project, which is funded under a Knowledge Exchange and Dissemination Scheme from the Health Research Board.

DEPRESSED PEOPLE HAVE A MORE ACCURATE PERCEPTION OF TIME

People with mild depression underestimate their talents. However, new research carried out by researchers at the University of Limerick and the University of Hertfordshire shows that depressed people are more accurate when it comes to time estimation than their happier peers.
Depressed people often appear to distort the facts and view their lives more negatively than non-depressed people. Feelings of helplessness, hopelessness and worthlessness and of being out of control are some of the main symptoms of depression. For these people time seems to pass slowly and they will often use phrases such as "time seems to drag" to describe their experiences and their life. However, depressed people sometimes have a more accurate perception of reality than their happier friends and family who often look at life through rose-tinted glasses and hope for the best.

Dr. Rachel Msetfi, Senior Lecturer in Psychology, University of Limerick and one of the authors of the study, said: "We found that depressed people tended to be more accurate when estimating time whereas non-depressed people tended to be less accurate. This finding, along with some of our other work, suggests that depression leads to more attention paid to time passing. Sometimes this might lead to a phenomenon known as 'depressive realism', though on other occasions time might seem to be moving more slowly than usual."

In the study, volunteers, who were classified as mildly depressed or non-depressed, made estimates of the length of different time intervals of between two and sixty-five seconds. Overall, those volunteers who were mildly depressed were more accurate in their time estimations.
Dr. Msetfi noted that: "Time is a very important part of everyday experience; it flies when we are having fun or enjoying ourselves. One of the commonest experiences of depression is that people feel that time passes slowly and sometimes painfully. Our findings may help to shed a little light on how people with depression can be treated. People with depression are often encouraged to check themselves against reality, but maybe this timing skill can be harnessed to help in the treatment of mildly depressed people. These findings may also link to successful mindfulness-based treatments for depression which focus on encouraging present moment awareness."

The paper, 'Time perception and depressive realism: Judgement type, psychophysical functions and bias,' is published in PLOS ONE. Co-authors are Rachel M. Msetfi (University of Limerick), Melvyn J. Grimwood (University of Leicester) and Diana E. Kornbrot (University of Hertfordshire).

DEPRESSION - WHY LIFE CAN FEEL OUT OF CONTROL

People with depression often feel their life is out of control. It can evoke feelings that their life is pointless or by merely existing bad things can happen. Research funded by the

Economic and Social Research Council (ESRC) suggests that these feelings may be caused by subtle changes in the way depressed people perceive time and process their surroundings.

Experiments by Dr. Rachel Msetfi, Psychology Researcher, University of Limerick and Dr. Robin Murphy, University of Oxford, used a computer-based task to explore how healthy as well as depressed volunteers responded to simple tasks in which they had varying levels of control.

They were asked to test the reliability of a remote controller in different rooms of a virtual house. The remote would switch on the hi-fi in each room with a certain level of reliability; sometimes the music would come on immediately, sometimes with a slight delay and sometimes it would start even when the volunteer decided not to use the remote.

The experiment was designed so that in different rooms the volunteers had different levels of control. In some rooms pressing the remote control worked well. In other rooms the remote was less reliable, giving the volunteers less control. After many goes at using the remote controller in a room each participant was asked about how much control they felt they had using the remote, and the extent to which the behaviour of the hi-fi was governed by the room, not them pressing the button.

Dr. Msetfi's analysis showed that when there were longer delays, either between opportunities to press the remote button or between pressing the button and the music turning on, depressed people responded differently than others. Interestingly, with these longer delays, their judgements were actually more realistic than those of the healthy volunteers.

This finding supports other studies which suggest that people with depression experience time as passing more slowly; they also tend to process cues from their environment and context differently to people without depression.

"When depressed people have more time to process information about cause and effect, due to their slower perception of time they tend to take more notice of their environment which is often beyond their control, hence their feelings of helplessness," says Msetfi. "We see that contrary to the cognitive theory of depression, which emphasises the effects of irrational thought, here very subtle changes in perceptions have a strong knock on effect on other cognitive processes and feelings of control."

Msetfi also suggests that her research may also help to explain why mindfulness therapy is so successful in treating depression and preventing relapse. "Mindfulness is about paying more attention to what is happening right now. If time moves more slowly for people with depression and makes them oversensitive to their surroundings, mindfulness may work because it recalibrates their perceptions to find a better balance."

UL STUDY FINDS GROUPS HELP YOU DEAL WITH STRESS

A University of Limerick study has found that a shared community or identity influences how we view and respond to stress. The study, 'Social identity influences stress appraisals and cardiovascular reactions to acute stress exposure' was recently published in the British Journal of Health Psychology.

Lead researcher, Dr. Stephen Gallagher, University of Limerick explains; "Prior research has tended to show how we respond and think about stress is something that we did as individuals. However, our research has shown that how we see and react to stress is shaped by the groups that we share membership with, those people who we would consider to be like us."

Dr. Stephen Gallagher

Over one hundred participants took part in the study where they were hooked up to blood pressure monitors and asked about their psychological state over the course of the experiment. They were then told that they were going to have to do a maths task. During the experiment, university students were told by someone who they considered to be like them, a fellow student, that an impending math stressor was challenging rather than stressful and the students reacted accordingly. Not only did they report less stress after doing the maths task, they also had lower blood pressure reactions and performed much better at the task compared to those who were told it was stressful. This pattern was not evident when the information was given by an outsider, who they had nothing in common with.

Dr. Gallagher said "These informational exchanges by group members not only had psychological consequences for these people but it also affected them physiologically too and together these have implications for health. You are more likely to trust others similar to you, and believe what they tell you. This trust allows the informational exchange to be acted upon and processed by the receiver in a way that is meaningful to them which can have positive or negative effects on health and in our study context it was managing and responding to stress."

'Social identity influences stress appraisals and cardiovascular reactions to acute stress exposure.' Authors: Dr. Stephen Gallagher, Sarah Meaney and Professor Orla Muldoon, University of Limerick.

SICK TEDDY BEARS RECEIVE TOP TREATMENT AT UL GRADUATE ENTRY MEDICAL SCHOOL

Medical School students at the University of Limerick hosted the University's inaugural Teddy Bear Hospital (TBH) on February 27th, 2013 with hundreds of Limerick's primary school children and their teddy bears. The aim of the event, which has been organised by five current Graduate Entry Medical School (GEMS) students with a particular interest in childhood medicine, is to alleviate childhood anxiety about the medical environment, its procedures and the professionals that work within it.

Pictured at the UL Teddy bear hospital is Abby Yelverton age 4 with her Teddy Bear from Milford National School

Over 75 GEMS students took part in the event which saw 10 medical stations set up in the University Arena focusing on activities including: Triage; Stethoscopes; Vital Signs; X-ray; Exercise; Surgery/Gowning; Asthma; Safety; First Aid and Healthy Eating.

Orlaith Purcell age 4 from Milford National School

Speaking from the event UL GEMS student Kira Gullane said "The UL GEMS Teddy Bear Hospital is designed to be an interactive initiative that allows children to experience the atmosphere of a healthcare encounter without being a patient themselves. Primary school students (aged 4-7) bring their teddy bear which then plays the role of the patient for the day. This visit to the Teddy Bear Hospital provides the children with an opportunity to interact with and assist in a range of simulated healthcare, while also providing them with an opportunity to ask any questions with respect to healthcare that may concern them in a friendly and fun environment."

The promotion of a healthy lifestyle and preventative medicine was at the forefront of this educational and fun event. The topics covered included the importance of regular exercise, thorough hand-washing techniques and a healthy diet. It is also hoped that this initiative will strengthen the relationship of UL GEMS and its students and the surrounding community.

Joshua Adebambi age 5 from Milford National School

Speaking about the inaugural UL Teddy Bear Hospital, UL President, Professor Don Barry said; "This is the first time that UL has run this event. Bearing in mind the fact that the Graduate Entry Medical School was only recently established and that its students are undertaking a highly intensive medical education programme it is remarkable that this type of initiative has developed so early in the School's history. It is a testament to the type of student that the Medical School at the University of Limerick attracts."

The Teddy Bear Hospital at the University of Limerick, which took place at the University Arena is the first of its kind for the Limerick region. This initiative in Limerick was developed by five current, University of Limerick, Graduate Entry Medical School (GEMS) students: Kira Gullane, Jennifer Johnson, Lukas Kieswetter, Niamh Rafter and Melissa Shack.

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