

# National Institute of Health Sciences Research Bulletin



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- Prevalence of Exercise Addiction in the Irish CrossFit Community

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# Abstracts

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# To Discontinue or Continue Treatment? Decision-Making Experiences of Patients with Chronic Myeloid Leukaemia on Tyrosine Kinase Inhibitors

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## INTRODUCTION

Patients with Chronic Myeloid Leukaemia (CML) are managed with oral tyrosine kinase inhibitor (TKI) lifelong oral therapy. Recent clinical studies have shown that patients with deep molecular responses were able to discontinue TKI therapy and remain in treatment free remission (TFR).<sup>1</sup> Discontinuation of TKI treatment is now being offered in clinical practice to select patients.<sup>2</sup> The emotional impact and decision-making experience of stopping TKIs previously thought to be a lifelong therapy is a potentially overlooked area of current CML management.

## OBJECTIVE

The aim of this study was to explore the decision-making experiences of patients who had been counselled with regard to TKI discontinuation, their reaction to and preference for stopping treatment, and the factors which patients consider when making the decision around continuing or discontinuing treatment.

## METHODOLOGY

This was a qualitative descriptive study using semi-structured one to one interviews with purposive sampling and thematic analysis. Patients were recruited from a dedicated CML clinic at a single centre. The sample population was comprised of patients who had been counselled by the consultant Haematologist with regard to TKI treatment discontinuation (n=11). Five patients agreed to being interviewed. They had been taking TKI treatment for between 5 and 13 years. Four patients had chosen to discontinue TKI treatment and one patient had chosen to remain on TKI treatment.

## RESULTS

Four factors in relation to the decision-making experience emerged.

- **“Waiting for the nod”** - All participants spoke of having already discussed the possibility of treatment discontinuation with their doctor and felt they had all the information they required. The participants who chose to stop appeared to be waiting for the opportunity from the doctor to attempt treatment discontinuation and expressed confidence in the healthcare team and close monitoring with blood tests.
- **“My decision alone”** - Participant interviews included reference to discussions with friends and family in relation to treatment discontinuation but ultimately, they felt that it was their decision alone.
- **“The role of treatment-related side effects”** - The experience of side effects from TKI treatment was acknowledged by all participants but surprisingly, reducing side effects did not appear to be a relevant factor when deciding to continue or discontinue treatment.
- **“Possibility of Relapse”** - The possibility of relapse was discussed by all participants and participants were aware of, and pragmatic, with regard to this risk. They were reassured by close monitoring with blood tests.

## CONCLUSIONS

This study enhances our understanding of the factors which are relevant to patients when making decisions regarding TKI discontinuation. Further research with a larger cohort of patients is proposed.

## REFERENCES

Available on request.

## PRESENTED

- As an oral and poster presentation at the Haematology Association of Ireland Annual General Meeting in Galway on October 11th, 2019 by Fidelma Hackett. Awarded the Gillian Lamrock Annual Award First Prize for an oral presentation.
- At the Inaugural University of Limerick Hospitals' Medicine Directorate Nursing Conference in University Hospital Limerick as 'Innovations in Chronic Disease Management' on November 16th, 2019 as a poster presentation.
- As an oral presentation at the HSE West/Mid-West Nursing and Midwifery Research and Innovation Conference at University Hospital Limerick on February 18th, 2020 by Fidelma Hackett.

## Psychosocial Health Improvements at Phase III Cardiac Rehabilitation

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### INTRODUCTION

Cardiac Rehabilitation (CR) is a multidisciplinary intervention for people with cardiovascular disease who experience a new cardiac event or step change in cardiac condition.<sup>1</sup> The goals of CR have broadened in recent decades to include an appreciation for the role of psychosocial risk factors, such as depression, anxiety, and social support, in patient recovery.<sup>2</sup> Comprehensive CR programmes are likely to implement components such as psychologically focused interventions or referral to psychological counselling, to manage psychosocial risk factors, in line with clinical practice recommendations.<sup>3,4</sup>

Research suggests that support from a spouse is linked to more positive patient outcomes.<sup>5</sup> Some studies report that levels of depression and anxiety can be higher in spouses than in patients following a coronary event and this has been linked to poorer psychosocial adjustment in patients.<sup>6,7</sup> Increased caregiver burden in spouses can also impede psychosocial recovery in patients.<sup>8</sup> The effect of patient attendance at CR on the psychosocial health and levels of caregiver burden in spouses remains unclear.

### OBJECTIVE

This present study sought to evaluate a CR programme (Phase III) at Sligo University Hospital (SUH), focusing specifically on psychosocial outcomes for both patients and their spouses.

### METHODOLOGY

The study employed a within-subject repeated measures design. Participants included patients attending the 10 week CR programme at SUH between May 2018 and September 2019. Spouses were invited to participate. The final dataset included (n=95) patients and (n=22) spouses.

Quantitative data was collected via questionnaires at 3 time points (pre-intervention, post-intervention and 6 month follow-up). The questionnaires included the Patient Health Questionnaire - 9 (PHQ-9)<sup>9</sup> and the Generalised Anxiety Disorder - 7 (GAD-7)<sup>10</sup> for patients. The PHQ-9, GAD-7 and Bakas Caregiving Outcomes Scale (BCOS)<sup>11</sup> were administered to spouses.

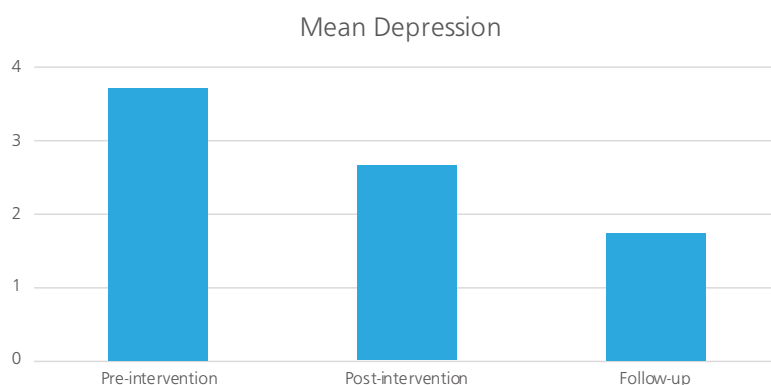
The psychological component of CR was delivered by a Clinical Psychologist via a stepped-care model, with all participants receiving a minimum of two 1 hour group psychoeducation sessions. These sessions sought to normalise the psychosocial sequelae that can follow a cardiac event and address issues of stress management and self-care.

### RESULTS

#### Patients

One-way repeated measures ANOVA revealed significant differences in depression across the three time points ( $F(2,74)=4.85$ ,  $p=0.010$ ,  $\eta^2p=0.12$ ). Paired samples t-tests revealed a significant difference in depressive symptoms between pre-intervention and 6-month follow-up ( $t(37)=3.42$ ,  $p=0.002$ ).

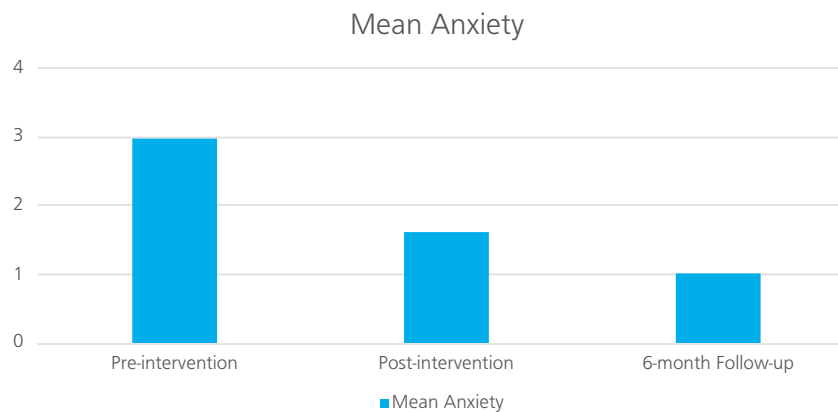
**Figure 1 - Mean Depression Scores Across Time for Patients**



Analyses revealed significant differences in anxiety across the three time points ( $F(2,74)=4.89$ ,  $p=0.010$ ,  $\eta^2p=0.12$ ). Paired samples t-tests showed a significant difference in anxiety symptoms between pre-intervention and post-intervention ( $t(94)=2.65$ ,  $p=0.009$ ) and pre-intervention and 6-month follow-up ( $t(37)=3.44$ ,  $p=0.001$ ).



**Figure 2 - Mean Anxiety Scores Across Time for Patients**



### Spouses

Results of the Friedman test revealed no significant differences in depressive symptoms across the three time points ( $\chi^2=2.15$ ,  $df=2$ ,  $p=0.544$ ), or in anxiety symptoms ( $\chi^2=0.154$ ,  $df=2$ ,  $p=0.926$ ). No significant differences in caregiving outcomes across time were revealed ( $\chi^2=1.22$ ,  $df=2$ ,  $p=0.544$ ); albeit non-significant improvements in caregiving outcomes were observed.

### CONCLUSION

The current findings support previous literature which views CR as a vehicle for psychological intervention in cardiac patients to successfully ameliorate the impact of depression and anxiety. Results for spouses should be viewed as illustrative, rather than representative, due to the small sample size. Future research should recruit a higher number of spouses/close partners of patients attending CR to examine this effect more accurately and subsequently address any intervention need for spouses/partners, as part of comprehensive CR.


### REFERENCES

Available on request.

### PRESENTED

- As a poster presentation at the Psychological Society of Ireland (PSI) Early Graduate Group Annual Conference (online) on September 10th, 2020.
- As an oral presentation at the 7th National Institute for Prevention and Cardiovascular Health Conference (online) on November 20th, 2020 by Cíara McBride and Conal McGlone.
- As a poster presentation at the 21st Annual Sligo University Hospital Multidisciplinary Research Conference (online) on November 27th, 2020.

# Comparing Non-Invasive Diabetes Risk Scores for Detecting Undiagnosed Patients in Clinical Practice



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## INTRODUCTION

Type 2 diabetes (T2DM) is a significant cause of morbidity and mortality, thus early identification is of paramount importance. A high proportion of T2DM cases are undiagnosed highlighting the importance of effective detection methods such as non-invasive diabetes risk scores (DRSs). Thus far, no DRS has been validated in an Irish population.

## OBJECTIVE

Therefore, the aim of this study was to compare the ability of nine DRSs to detect T2DM cases in an Irish population.

## METHODOLOGY

This was a cross-sectional study of 1,990 men and women aged 46-73 years. Data on DRS components were collected from questionnaires and clinical examinations. T2DM was determined according to a fasting plasma glucose level  $\geq 7.0$  mmol/l or a glycated haemoglobin A1c level  $\geq 6.5\%$  ( $\geq 48$  mmol/mol). Receiver operating characteristic curve analysis assessed the ability of DRSs and their components to discriminate T2DM cases.

## RESULTS

Among the examined scores, area under the curve (AUC) values ranged from 0.71–0.78, with the Cambridge Diabetes Risk Score (AUC=0.78, 95% CI: 0.75–0.82), Leicester Diabetes Risk Score (AUC=0.78, 95% CI: 0.75–0.82), Rotterdam Predictive Model 2 (AUC=0.78, 95% CI: 0.74–0.82) and the U.S. Diabetes Risk Score (AUC=0.78, 95% CI: 0.74–0.81) demonstrating the largest AUC values as continuous variables and at optimal cut-offs. Regarding individual DRS components, anthropometric measures displayed the largest AUC values.

## CONCLUSIONS

The best performing DRSs were broadly similar in terms of their components; all incorporated variables for age, sex, BMI, hypertension and family diabetes history. The Cambridge Diabetes Risk Score, had the largest AUC value at an optimal cut-off, can be easily accessed online for use in a clinical setting and may be the most appropriate and cost-effective method for case-finding in an Irish population.

## PRESENTED

- At the West of Ireland Integrated Diabetes Care Conference in Galway on November 8th and 9th, 2019 (Poster).
- At the New Horizons in Medical Research Conference in University College Cork on December 5th, 2019 (Poster).
- At the Association of University Department of General Practice in Ireland (AUDGPI) and Irish College of General Practitioners (ICGP) Conference in University College Cork on March 6th, 2020 by Sinéad Flynn (Oral Presentation).

## FUNDING

This work was supported by a research grant from the Irish Health Research Board (reference: HRC/2007/13). The funders had no role in the study design, data collection and analysis, decision to publish or preparation of the manuscript.



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# The Prevalence and Determinants of Pre-Diabetes in Middle to Older Aged Irish Adults Using Three Diagnostic Methods

## INTRODUCTION

Type 2 diabetes is a leading cause of death and disability worldwide and pre-diabetes is a strong predictor of diabetes development. To date, studies estimating the prevalence of pre-diabetes in the Irish population are sparse and conflicting. Monitoring the prevalence of pre-diabetes and understanding associated determinants is required to inform policies and to prevent the development of Type 2 diabetes. This research examined the prevalence and determinants of pre-diabetes in a sample of middle to older aged Irish adults using three separate methods for diagnosis.

## METHODOLOGY

The Mitchelstown Cohort Re-screen (2016/'17) was a follow-up study of the Mitchelstown Cohort Study (2010/'11). One thousand three hundred and seventy eight participants were recruited from a random sample of participants attending a single primary care centre. Pre-diabetes was defined using three diagnostic criteria: American Diabetes Association (ADA) HbA1c cut-offs: 5.7%–6.4% (39–46 mmol/mol); World Health Organization International Expert Committee (WHO-IEC) HbA1c cut-offs: 6.0%–6.4% (42–46 mmol/mol); and, ADA fasting plasma glucose (FPG) cut-offs: 5.6–6.9 mmol/l. Univariate and multivariable logistic regression analyses were used to consider relationships between determinants and pre-diabetes definitions.

## RESULTS

The prevalence of pre-diabetes in middle to older aged Irish adults was found to be 43.9% (95% CI:41.2%-45.5%), 14.5% (95% CI:12.7%-16.5%) and 15.8% (95% CI:13.9%-17.8%) according to HbA1c ADA, HbA1c WHO-IEC and FPG ADA definitions respectively. Depending on diagnostic method, factors associated with pre-diabetes in univariate analyses included sex, age, marital status, health rating, education and poor diet quality. In multivariable analysis, subjects classified by the FPG ADA pre-diabetes criterion displayed the least optimal metabolic profile defined by overweight and obesity (OR=2.88, 95% CI:1.53–5.43), hypertension (OR=2.27, 95% CI:1.15–3.40) and low high-density lipoprotein cholesterol concentrations (OR=1.75, 95% CI:1.07–2.87).

## CONCLUSIONS

The discordance between prevalence estimates according to method of diagnosis is concerning. A National Diabetes Prevention Programme is currently being developed in Ireland. Monitoring the prevalence of pre-diabetes over time will be important to assess the effectiveness of this programme.

This study will inform national decision-makers on which definition of pre-diabetes to use for monitoring trends in prevalence over time.

## PRESENTED

- As a poster presentation at the West of Ireland Integrated Diabetes Care Conference in the Connemara Coast Hotel, Galway on November 8th, 2019.
- As an oral presentation at the New Horizons in Medical Research Conference in University College Cork on December 5th, 2019 by Kate Junker.
- As an oral presentation at the Association of University Departments of General Practice in Ireland (AUDGPI) and Irish College of General Practitioners (ICGP) Joint Scientific Meeting in University College Cork on March 6th, 2020 by Kate Junker.

## FUNDING

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## An Audit of Type II Diabetes Mellitus 'Cycle of Care' Monitoring in Primary Care

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### INTRODUCTION

The number of Type II diabetes (T2DM) patients in Ireland is increasing, largely due to an ageing population and advancing levels of obesity,<sup>1</sup> and is posing a large economic burden for the health service. The CODEIRE study showed complications related to T2DM increased annual cost of care by 280%.<sup>2</sup> Diabetes 'cycle of care' was a reimbursement initiative introduced in October 2015 to manage T2DM in primary care.

### OBJECTIVE

The aim of the audit was to assess whether annual checks of process of care parameters, specifically HbA1c and LDL values, had improved in T2DM patients within the General Medical Services (GMS) scheme, since the diabetes 'cycle of care' was introduced. Also, it aimed to evaluate whether the introduction of the programme has improved HbA1c and LDL measurements to target levels set by NICE guidelines and the HSE. Finally, it aimed to analyse T2DM patients by their eligibility to free GP care and by their attendance at two or more GP visits within the prior 12 months.

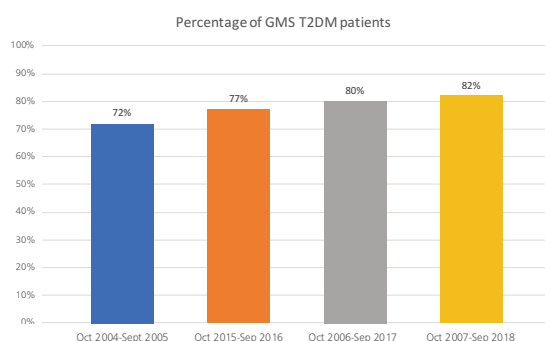
### METHODOLOGY

Electronic medical records in a multi-GP practice network were audited to assess if the HbA1c and LDL values being recorded in T2DM patients had improved since the diabetes 'cycle of care' was introduced. The objective was to ascertain if these parameters had improved in these patients to reach target levels set by NICE guidelines and HSE. Patient files of current T2DM patients based on eligibility for free GP care were also assessed to see if they had attended the GP at least twice in the previous 12 months.

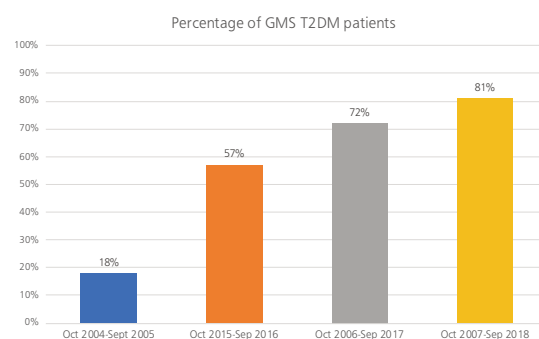
### RESULTS

In the GP practice network consisting of 13,497 patients, 256 patients in the practice network have T2DM. Thirty two per cent (n=51) of these patients are private and 62% of private patients visited the GP/nurse at least twice in the last 12 months whereas 93% of GMS patients attended for visits. Sixty of the T2DM patients were eligible for this audit having been diagnosed before October 2014. HbA1c monitoring was at 72% prior to the introduction of the 'cycle of care' and increased to 82% in October 2017 to September 2018 (Figure 1). LDL monitoring increased 39% one year after the programme and was at 83% in October 2017 to September 2018 (Figure 2). HbA1c target range of  $\leq 53$ mmol/mol ( $\leq 7.0\%$ ) improved from 44% to 50% in October 2015 to September 2016, however it did not improve again. LDL range of  $\leq 2.5$  mmol/L improved. Two years after the introduction of the programme over half of patients (68%) had optimal LDL levels (Table 1).

**Figure 1 - Percentage of GMS Type II Diabetes Mellitus Patients with HbA1c Levels Checked Annually**



**Figure 2 - Percentage of GMS Type II Diabetes Mellitus Patients with Lipid Levels checked Annually**



**Table 3 - Target HbA1c and LDL Levels of GMS Type II Diabetes Mellitus Patients Annually**

		Oct. 2014- Sept. 2014	Oct. 2015- Sept. 2016	Oct. 2016- Sept. 2017	Oct. 2017- Sept. 2018
HbA1c	$\leq 53$ mmol/mol ( $\leq 7.0\%$ )	44%	50%	50%	45%
LDL	$\leq 2.5$ mmol/L	45%	47%	49%	68%



## **CONCLUSION**

Annual checks of process of care parameters have improved since the diabetes 'cycle of care' was introduced, with the target in the future of 100% of T2DM patients being regularly monitored for HbA1c and LDL levels. Decreasing LDL levels in T2DM patients is promising as it reduces cardiovascular morbidity and mortality by over one fifth. Increased emphasis on patient education and individualised goals in risk factor reduction needs to be done to improve glycaemic control in patients with T2DM within this GP practice network. Due to the deterrent of a consultation charge in private T2DM patients, more government initiatives need to be introduced to ensure regular follow-up in order to prevent long-term complications of the disease. Progress has been seen in the management of care in patients with T2DM within this GP practice network since the 'cycle of care' has been introduced.

## **REFERENCES**

Available on request.

## A Qualitative Study on Exploring the Barriers in Renal Home Therapies

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### INTRODUCTION

Chronic kidney disease (CKD) is a severe health problem that results in poor quality of life for patients and has a huge economic impact on health sectors. The progression of CKD could be effectively managed by preparing patients appropriately for renal replacement therapies (RRT). Among these, home dialysis is considered the best option for renal failure patients as evidence suggests it offers a range of clinical, survival, economic, and social benefits and better quality of life (QOL). Pre-emptive transplantation of the kidney is considered the first line of treatment for end-stage renal disease. However, the non-availability of suitable kidneys means a patient may have to wait for three to five years or even longer. The immediate treatment measure for renal failure is therefore dialysis. Evidence gathered over forty years suggests that home dialysis options should be considered first as they offer a lower mortality rate, better QOL, increased opportunities for employment and greater independence.<sup>1</sup> The international renal guidelines<sup>2</sup> encourage shared decision-making between the patient and physician regarding the selection of a dialysis modality that best suits the patient's lifestyle. Despite the advantages of home dialysis, this option remains underused due to several hidden barriers. The Irish Kidney Association<sup>3</sup> state that only 7% of patients across Ireland are receiving home dialysis. This is therefore the first study conducted in Ireland to identify the barriers to home therapies.

### OBJECTIVES

The aim of this study was to identify the barriers that prevent renal failure patients from selecting renal home therapies by exploring their knowledge of these therapies and also;-

- To explore the knowledge dialysis patients have of home dialysis
- To identify the benefits and barriers that prevent dialysis patients from adopting home dialysis
- To assess the technical challenges dialysis patients face in the uptake of home dialysis
- To assess the effect of modality education given to renal patients prior to the start of dialysis

### METHODOLOGY

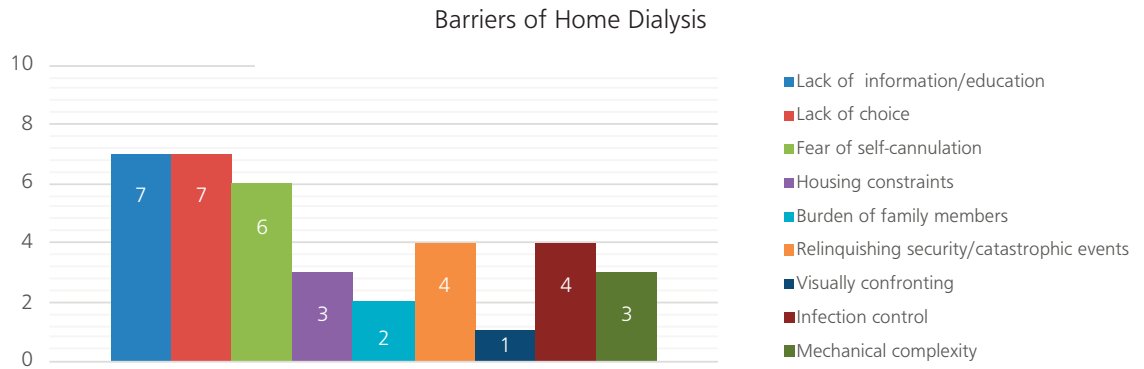
This is a descriptive qualitative study carried out in an individual renal department of a Health Service Executive hospital. A purposive sample of ten dialysis patients was recruited to identify barriers to selecting renal home therapies. Semi-structured interviews were conducted with participants from December 2018 to January 2019. Thematic analysis was employed to analyse the data.

### RESULTS

Two main themes were identified in this study, each of which was composed of several sub-codes. The primary themes were knowledge about home dialysis and barriers to home dialysis. The sub-codes relating to knowledge were lack of information/education, lack of choices, peer influences, lack of shared decision-making, and the benefits of home dialysis. The sub-codes relating to barriers were lack of information/education, lack of choices, fear of self-cannulation, burden on family members, housing constraints, visually confronting, infection control, relinquishing security/catastrophic events, and mechanical complexity. Regarding the objectives of the study, the technical challenges identified were a lack of knowledge in managing the dialysis machine and a fear of adverse events. The effect of modality education was not well understood as only three out of the ten patients had received an options education. Approximately 70% of patients did not receive adequate information/education on CKD and treatment options and 60% were afraid of self-needling. These were considered the major barriers by patients to selecting home dialysis options.



Figure 1 – The Percentage of Participants and the Barriers Identified in this Study



**CONCLUSION**

This study identified the barriers faced by patients opting for renal home therapies. The findings of the study demonstrate the need to improve and upgrade the pre-dialysis educational programme followed in the present location and also nationally.

The educational programme should focus on providing adequate and sufficient information to patients at the right time so that they can decide to opt for the dialysis modality that suits their lifestyle and preferences.

**REFERENCES**

Available on request.



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## Risk Factors Associated with Progression to Referable Retinopathy - A Type 2 Diabetes Mellitus Cohort Study in the Republic of Ireland

### ABSTRACT

The aim of this research was to determine factors associated with progression to referable diabetic retinopathy in people with Type 2 diabetes in the Republic of Ireland.

The study was conducted in a dynamic cohort of 2,770 people with Type 2 diabetes, recruited between April 2005 and July 2013. Systemic factors (systolic and diastolic blood pressure, HbA1c, lipid levels, Body Mass Index (BMI)) and baseline diabetic retinopathy grading results were evaluated at 4 monthly and yearly intervals, respectively. Associations between risk factors (most recently recorded value, and rate of change in value between pairs of consecutive systemic evaluations) and development of referable diabetic retinopathy were estimated using Cox proportional hazards models.

There was a fourfold increased risk of progression to referral when retinopathy was present at baseline vs. no retinopathy at baseline (hazard ratio 4.02, 95% CI 2.80-5.78; P<0.001).

Higher current values of HbA1c (hazard ratio 1.22, 95% CI 1.11-1.34; P<0.001), systolic blood pressure (hazard ratio 1.29, 95% CI 1.15-1.45; P<0.001) and triglycerides (hazard ratio 1.10, 95% CI 1.03-1.18; P=0.004) were associated with increased risk of referral.

Higher current BMI (hazard ratio 0.83, 95% CI 0.73-0.95; P=0.007) and diastolic blood pressure (hazard ratio 0.91, 95% CI 0.85-0.97; P=0.006) were associated with reduced risk of referral.

Presence of retinopathy at baseline was strongly associated with increased risk of referral. Modest associations between systemic factors and risk of progression to referable retinopathy were detected.

- In a cohort of people with Type 2 diabetes in the Republic of Ireland, mild retinopathy, when compared with no retinopathy, at screening was strongly associated with increased risk of progression to referable retinopathy.
- Elevated HbA1c, systolic blood pressure and triglyceride levels were associated with an increased risk of referral.
- Elevated diastolic blood pressure was associated with reduced risk of referral.

This is the first comprehensive study evaluating risk factors and rates of referral in an Irish population with Type 2 diabetes; knowledge of risk factors and the strength of their association with incidence/progression of retinopathy is essential if individualised risk-based screening programmes are to be implemented

### SOURCE

Diabetic Medicine. 2020 (June);37(6):1000-1007. [doi.org/10.1111/dme.14278](https://doi.org/10.1111/dme.14278)

# Association and Predictive Ability of Maternal Body Composition Parameters in Early Pregnancy to Identify Gestational Diabetes Mellitus

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## ABSTRACT

Accurate early risk prediction for gestational diabetes mellitus (GDM) would target intervention and prevention in women at the highest risk. We evaluated maternal risk factors and parameters of body composition to develop a prediction model for GDM in early gestation.

A prospective observational study was undertaken. Pregnant women aged between 18 and 50 years of age with gestational age between 10 and 16 weeks were included in the study. Women aged  $\leq 18$  years, twin-pregnancies, known foetal anomaly or pre-existing condition affecting oedema status were excluded. Eight-point skinfold thickness, MUAC, waist, hip, weight and ultrasound measurements of subcutaneous (SAT) and visceral abdominal adipose (VAT) were measured. Oral glucose tolerance test (OGTT) for GDM diagnosis was undertaken at 30 weeks gestation. Binomial logistic regression models were used to predict GDM. ROC analysis determined discrimination and concordance of model and individual variables.

**Table 1 - Concordance Statistic (AUC) for All Variables Computed with Receiver-Operator Curves (ROC) Analyses for GDM, in Order of Descending AUC Value (n=16)**

Predictive variable	AUC	95%CI	p-value
VAT	0.743	0.628-0.858	<0.0005**
$\Sigma$ SAT & VAT	0.739	0.618-0.860	<0.0005**
Truncal SFT	0.730	0.613-0.846	0.002**
Subscapular SFT	0.728	0.607-0.848	0.002**
Supraspinale SFT	0.726	0.612-0.839	0.002**
Abdominal SFT	0.722	0.605-0.839	0.003**
SAT	0.713	0.58-0.839	0.002**
$\Sigma$ 8-points SFT	0.710	0.589-0.839	0.005**
Waist	0.705	0.570-0.841	0.004**
Hip	0.701	0.564-0.838	0.005**
Supra-iliac SFT	0.699	0.585-0.814	0.007**
Thigh SFT	0.681	0.564-0.799	0.014*
Weight	0.676	0.537-0.815	0.015*
Appendicular SFT	0.673	0.552-0.794	0.019*
BMI	0.670	0.535-0.806	0.018*
Bicep SFT	0.667	0.523-0.811	0.024*
Tricep SFT	0.646	0.514-0.778	0.049*
MUAC	0.639	0.496-0.781	0.055
Calf SFT	0.637	0.501-0.773	0.064

\*=statistically significant at  $p \leq 0.05$

\*\*=statistically significant at  $p \leq 0.01$

One hundred and eighty eight women underwent OGTT at 30 weeks gestation. Twenty women developed GDM. BMI ( $24.7 \text{ kg.m}^{-2} (\pm 6.1)$ ,  $29.9 \text{ kg.m}^{-2} (\pm 7.8)$ ,  $p=0.022$ ), abdominal SAT ( $1.32 \text{ cm}$  (CI 1.31-1.53),  $1.99 \text{ cm}$  (CI 1.64-2.31),  $p=0.027$ ), abdominal VAT ( $0.78 \text{ cm}$  (CI 0.8-0.96),  $1.41 \text{ cm}$  (CI 1.11-1.65),  $p=0.002$ ), truncal SFT ( $84.8 \text{ mm}$  (CI 88.2-101.6),  $130.4 \text{ mm}$  (CI 105.1-140.1),  $p=0.010$ ), waist ( $79.8 \text{ cm}$  (CI 80.3-84.1),  $90.3 \text{ cm}$  (CI 85.9-96.2),  $p=0.006$ ) and gluteal hip ( $94.3 \text{ cm}$  (93.9-98.0),  $108.6 \text{ cm}$  (99.9-111.6),  $p=0.023$ ) were higher in GDM vs. non-GDM. After screening variables for inclusion into the multivariate model, family history of diabetes, previous perinatal death, overall insulin resistant condition, abdominal SAT and VAT, 8-point SFT, MUAC and weight were included. The combined multivariate prediction model achieved an excellent level of discrimination, with an AUC of 0.860 (CI 0.774-0.945) for GDM.



An early gestation risk prediction model, which incorporates known risk factors, and parameters of body composition accurately identified pregnant women in their first trimester who developed GDM later on in gestation. This methodology could be used clinically to identify at-risk pregnancies, and target specific treatment through referred services to those mothers who would most benefit.

**PRESENTED**

As a poster presentation at the 22nd European Congress of Endocrinology (eECE 2020) which took place online from September 5th to 9th, 2020.

**FUNDING**

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**SOURCE**

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## Do Early Gestation Maternal Body Composition Parameters Identify Neonates Born Large for Gestational Age?

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### ABSTRACT

Globally, birth weights are increasing progressively. Birth weights large for gestational age (LGA) defined as  $\geq 90$ th centile are linked to increased delivery complications, and adiposity in the neonate. This has been linked to glucose intolerance and CVD later in life. Oversupply of nutrients *in utero* contribute to excess foetal growth, and maternal obesity may contribute to this rise.

The aim of this study is to examine the relationship between parameters of maternal body composition to neonatal birth weight.

A prospective observational study was undertaken. Pregnant women aged between 18 and 50 years of age with gestational age between 10 and 16 weeks were included in the study. Women aged  $\leq 18$  years, twin-pregnancies, known foetal anomaly or pre-existing condition affecting oedema status were excluded. Eight-point skinfold thickness, MUAC, waist, hip, weight and ultrasound measurements of subcutaneous (SAT) and visceral abdominal adipose (VAT) were measured. Birth outcomes were abstracted from medical notes post-partum. Birth centiles were adjusted for maternal ethnicity, weight, height and gestational age at birth. Shapiro Wilk's test and visual inspection of Q-Q plots were used to assess distribution of data. Spearman rho correlation analysis was used to assess the relationship between all test variables and outcome measures as continuous variables. Non-parametric independent sample test was used to assess differences between group medians using LGA as a binary-classification.

Two hundred and twenty four women were recruited in their first trimester of pregnancy. Twenty five neonates were born LGA. Very few significant, but weak ( $\rho \sim 0.1$ ) correlations were found with unadjusted birth weight and all test variables.

No correlations were found for all test variables when correlated with birth weight centile. Medians and 95% confidence intervals (CI), as well U statistic asymptotic p-values are reported for both groups in Table 1 below. No test variables were found to be statistically different ( $p < 0.05$ ) between neonates born LGA and non-LGA.

Parameters of body composition in early gestation do not predict neonates born large for gestational age.

**Table 1 - Medians (95% CI) for Each Dependant Variable, and Asymptotic P-Value between LGA and Non-LGA**

	LGA (n=25)	Non-LGA (n=199)	p
<b>BMI</b>	24.9(23.3-28.6)	25.9(25.3-27.1)	0.979
<b>Weight</b>	65.7(63.0-78.7)	69.5(68.3-73.5)	0.768
<b>Height</b>	164.3(162.6-167.2)	165.1(163.4-165.7)	0.936
<b>Ultrasound measures</b>			
<b>Abdominal (SAT)</b>	1.45(1.27-1.82)	1.37(1.35-1.58)	0.671
<b>Abdominal (VAT)</b>	0.78(0.65-1.04)	0.84(0.85-1.03)	1.000
<b>Abdominal (Total)</b>	2.37(1.94-2.83)	2.32(2.22-2.60)	1.000
<b>Skinfold Thickness</b>			
<b>Bicep</b>	13.6(12.7-18.8)	14.3(14.7-17.4)	0.689
<b>Tricep</b>	21.4(20.2-26.2)	21.3(21.6-24.3)	0.852
<b>Subscapular</b>	16.8(15.2-22.6)	18.3(19.3-22.9)	0.669
<b>Supra-iliac</b>	32.1(25.7-36.9)	26.2(26.6-30.6)	0.350
<b>Supraspinale</b>	21.4(16.9-25.8)	17.9(18.5-22.1)	0.173
<b>Abdominal</b>	27.4(23.0-31.4)	26.2(25.7-29.4)	0.363
<b>Thigh</b>	35.8(35.7-40.7)	34.2(31.6-44.4)	0.893
<b>Calf</b>	22.2(17.1-26.2)	19.9(20.0-23.3)	0.611
<b>Total SFT</b>	163.8(148.4-202.9)	160.7(163.4-186.1)	0.392
<b>Appendicular SFT</b>	95.2(83.3-114.0)	91.9(92.5-105.1)	0.979
<b>Trunkal SFT</b>	93.8(82.1-115.3)	86.8(90.6-104.6)	0.979
<b>% body fat</b>	38.1(36.2-42.3)	38.0(38.3-40.9)	1.000
<b>Girths</b>			
<b>MUAC</b>	30.0(28.4-32.3)	30.2(29.6-31.2)	0.936
<b>MAMC</b>	23.0(21.8-24.4)	22.7(22.7-23.7)	0.979
<b>Waist</b>	80.2(78.1-88.3)	80.3(81.1-85.1)	0.957
<b>Hip</b>	94.8(91.9-104.1)	95.0(94.7-98.8)	1.000

\*=statistically significant at  $p \leq 0.05$



**PRESENTED**

As a poster presentation at the 22nd European Congress of Endocrinology (eECE) which took place online from September 5th to 9th, 2020.

**FUNDING**

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**SOURCE**

**Cremona, A.,** Cotter, A., Ismail, K., Hayes, K., Donnelly, A., Hamilton, J. & O'Gorman, C. (2020). Do early gestation maternal body composition parameters identify neonates born large for gestational age? *Endocrine Abstracts* 70AEP432. <http://dx.doi.org/10.1530/endoabs.70.AEP432>



## A Retrospective Review of the Perinatal Palliative Care Programme at Cork University Maternity Hospital

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### ABSTRACT

Perinatal Palliative Care (PPC) is a philosophy of care for women and families following antenatal diagnosis of a baby with a life-limiting condition (LLC). Advances in antenatal diagnostics, developments in perinatal care, as well as care at the margins of viability, have initiated discussions on decision-making around end-of-life care for a baby, and bereavement care for families experiencing perinatal death when diagnosed antenatally with an LLC.<sup>1</sup> The time parents have to spend with their baby is precious, and brief, so there must be a comprehensive and individualised approach to their care. The Health Service Executive (HSE) introduced the National Standards for Bereavement Care following Pregnancy Loss and Perinatal Death (NSBC)<sup>2</sup> with the purpose of enhancing bereavement care (BC) services for families experiencing perinatal death.

Data from electronic healthcare records were collated into four areas based on the NSBC, namely– bereavement care, the hospital, the baby and parents, and staff. Pregnancies from a two-year period (2017-2018) correlating with the NSBC rollout were reviewed. Cases where an antenatal diagnosis of LLC were made with one of the following outcomes – stillbirth, second-trimester miscarriage, or early neonatal death – were included in the review. At Cork University Maternity Hospital (CUMH) the aim is that pregnancies where an LLC is diagnosed are managed using a PPC approach, whether the parents choose to terminate or continue the pregnancy but at the time of this review, termination of pregnancy (TOP) for fetal anomaly was not available in Ireland. We excluded cases that did not actively engage with the PPC pathway and pregnancies where TOP was chosen. Data were supplemented by members of the CUMH Bereavement Specialist Team. Statistical analysis was conducted with IBM SPSS Statistics-25.

Overall, 51 cases were identified for potential inclusion in this review, with 38 meeting criteria. Thirty six point eight per cent (n=14) of pregnancies ended in stillbirth, 28.9% (n=11) in second-trimester miscarriage and 34.2% (n=13) in early neonatal death. The time spent on the PPC pathway ranged from 3 to 20 weeks.

All points of care from the NSBC were observed to a high standard. As identified from e-record documentation the majority of pregnancies (92%, n=35) had multidisciplinary pathways utilised in their care plans including doctors, BC specialists, and spiritual caregivers. In 57.9% (n=22) of cases, parents were offered a visit to the neonatal unit to see where their baby would potentially be cared for. With post-delivery care, 63% (n=24) of parents were facilitated to hold their baby in a caring environment, and 68% (n=26) of families were offered mementoes from their time with their baby, such as professional photographs or memory boxes. Where parents chose a name for their baby, 76.3% (n=29) of the babies were thereafter referred to by their given name. All women were cared for before and after birth in dedicated rooms with the pregnancy loss symbol used and displayed when appropriate.

The NSBC recommends that communication between the hospital team and General Practitioner (GP) takes place at antenatal diagnosis of LLC and following delivery and postnatal discharge in the form of telephone contact and a written letter. Some inconsistencies were noted whereby 18.4% (n=7) had both a telephone call and a discharge summary, 2.6% (n=1) had neither and in 78.9% (n=30) of cases only a discharge summary was documented. In line with the NSBC, CUMH hosts an Annual Remembrance Service, and have a dedicated BC Specialist Team.

The NSBC provides a platform for bereavement care audit. We found that almost all standards relating to clinical and psychological care provided to families were adhered to. The areas noted as needing improvement were those surrounding education in BC, staff support services and e-record documentation. PPC is a relationship built between the Multidisciplinary Team (MDT) and parents whose baby is diagnosed with an LLC. The compassionate journey is one of flexible support, choice and options. Evaluation and review of service provision is an integral part of all hospital care, and the improvement and development of these services.

### REFERENCES

Available on request.

### PRESENTED

As an oral presentation at:-

- The International Stillbirth Alliance Annual Conference in Madrid on October 4th, 2019 by Dr. Caoimhe Ní hÉalaithe.
- The Children's Palliative Care Conference in Galway on November 21st, 2019 by Dr. Caoimhe Ní hÉalaithe.

As a poster presentation at:-

- The Atlantic Corridor Medical Student Research Conference in University College Cork on November 7th, 2019

### SOURCE

Irish Journal of Medical Science.2019;188(Suppl.12):357. doi.org/10.1007/s11845-019-02152-y



## Shame and Urges to Engage in Non-Suicidal Self-Injury Adjusting for Guilt

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### INTRODUCTION

Non-suicidal self-injury (NSSI) is a widely recognised clinical problem associated with later suicidal behaviour. It is critical to understand factors which contribute to NSSI maintenance to inform treatment and prevention efforts.

### OBJECTIVE

The current study was a secondary data analysis which aimed to investigate the association between state shame and urges to engage in NSSI, adjusting for guilt.

### METHODOLOGY

The study was a prospective online survey, with monthly follow-up assessments. A convenience sample of participants with a history of NSSI (n=177) completed an online baseline survey and a smaller subset completed briefer follow-up surveys for a three month period. The study had two forms of analysis - a concurrent and a lagged analysis. Participants completed baseline questionnaires, including the demographic questionnaire, Self-Injurious Thoughts and Behaviour Interview (SITBI),<sup>1</sup> Alexian Brothers Urge to Self-Injure Scale (ABUSI)<sup>2</sup> and State Shame and Guilt Scale (SSGS).<sup>3</sup> The follow-up survey asked participants to score their NSSI over the past month and contained the ABUSI scale, SSGS and one item from the SITBI on self-harm frequency.

### RESULTS

There was a significant effect of state shame on urges to engage in NSSI, adjusting for guilt in the concurrent analysis. In addition, there was a significant effect of lagged shame on urges to engage in NSSI the following month. Guilt also had a significant effect on urges in the lagged analysis.

### CONCLUSIONS

Although the present study found an association, it cannot be said shame is actively causing or maintaining urges. Future longitudinal studies are needed to conclusively establish the relationship between shame and urges.



## Incidence of Young People with Bipolar Affective Disorder in Galway and Roscommon Community Child and Adolescent Mental Health Service 2011-2015

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### INTRODUCTION

Bipolar affective disorder (BPAD) is a serious and enduring mental illness that carries significant morbidity and mortality. The rates of diagnosis of early onset BPAD in under 18's in the USA have increased in the last 20 years. One study<sup>1</sup> showed a 72-fold difference in discharge rates for paediatric BPAD in youth between the U.S. and England but this disparity may be due to different diagnostic practices in the two countries. Different studies<sup>2</sup> have addressed the controversies in BPAD in youth and a recent updated meta-analysis<sup>3</sup> showed that these can be addressed by consistent application of validated criteria. There has been only one study<sup>4</sup> conducted partly in Ireland about the incidence of BPAD in children and adolescents as part of the Children and Adolescent Psychiatry Surveillance System (CAPSS) UK.

### OBJECTIVE

This study aimed to calculate an incidence rate of young people with BPAD attending the Child and Adolescent Mental Health Service (CAMHS) and to review symptom profile, familial and psychosocial factors and management strategies.

### METHODOLOGY

This study was designed as a retrospective chart review of all clinical files of patients in the Galway and Roscommon catchment areas referred with a potential BPAD over a 5 year period (2011-2015). Charts were identified for patients with a diagnosis of BPAD across all four Community CAMHS teams using a referrals database and discussing with teams locally to ensure that no cases were missed. Sociodemographic and clinical features were recorded for the final sample who reached criteria for BPAD according to the International Classification of Diseases (ICD-10) from a clinical note review. Microsoft Excel was used for statistical analysis.

### RESULTS

The Galway and Roscommon catchment area had a population of 314,718 as per census 2011.<sup>5</sup> A total of 4,924 referrals were made to the four CAMHS teams from 2011-2015, of which 3,558 referrals were accepted. Of these, 11 were identified as potential cases. Three patients were excluded on account of not meeting ICD-10 criteria and crossing the age limit, thus including 8 referrals in the final analysis. The estimated annual incidence rate was 0.51 per 100,000 of the general population, or 1.9/100,000 using the aged 19 and under figures as per census 2011.<sup>5</sup>

Most patients were males, diagnosed with the illness above 14 years and had a family history of BPAD which corresponds to the high heritability. Risperidone and olanzapine were the most prescribed antipsychotics, and all manic patients needed treatment with a mood stabiliser for remission.



**Table 1- Symptom Profile, Familial and Psychosocial Factors and Management Strategies for Paediatric Bipolar Patients**

Parameter		No. of Patients	Comments
Patient Profile	Male	6	
	Age of Diagnosis >14	6	
Family History	Mental Illness	All (8)	
	Bipolar Disorder	5	2 in 1st degree and 3 in 2nd degree relatives
Comorbid Diagnosis		4	Obsessive Compulsive Disorder: 1 Social Phobia: 1 Speech and Language Difficulties: 2 Attention Deficit Hyperactivity Disorder: none
Course of Illness	Manic episode alternating with depression	7	Only one patient had hypomanic episode alternating with depression
	Low mood preceding manic/hypomanic episode	5	One patient with depression was treated with escitalopram and subsequently developed a manic episode
Treatment Pattern	Treatment with antipsychotics	All (8)	Risperidone: 3, Olanzapine: 3, Aripiprazole: 1 Quetiapine: 1
	Treatment with mood stabilisers	All manic (7)	Lithium: 6 Sodium valproate: 1

## Discussion

Our calculated incidence rate (0.51/100,000) corresponds to that from the study by Sharma et al. 2016<sup>4</sup> (0.59/100,000). This could reinforce the disparity of BPAD diagnosis on the two sides of the Atlantic based on the previous studies. However meta-analysis by Van Meter et al.<sup>3</sup> about the epidemiology of bipolar disorder confirms that the rates of BPAD are not higher in the USA, nor are the rates increasing over time. This study could be replicated in other parts of Ireland to examine possible variability in incidence rates, given the wide variation quoted internationally. This was the first study to look at the demographic characteristics and incidence rate in Pediatric Bipolar patients in a geographically defined catchment area in Ireland. Using the CAMHS database, we are confident that no potential cases were missed. The main limitation of this study was the small sample size.

As CAMHS only took over care of those aged 16 and 17 nationally from 2012 onward, it is possible that some cases of young people with BPAD could have been missed, as they may have been attending adult mental health services by then. This does however only apply to one year of the study period.

## REFERENCES

Available on request.

## PRESENTED

1. As a poster presentation at the College of Psychiatrist's Ireland Spring Meeting in Athlone on April 12th, 2018.
2. As a poster presentation at the NUIG Deanery Day on June 19th, 2018 in University Hospital Galway.

## FUNDING

This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

## Mental Health Nurses' Knowledge of Clozapine Medication

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### ABSTRACT

Clozapine is an antipsychotic 'gold-standard' medication<sup>9</sup> prescribed for individuals to treat treatment-resistant schizophrenia.<sup>10</sup> However, its utilisation is low due<sup>6</sup> to its life-threatening adverse effects<sup>2</sup> including agranulocytosis,<sup>8</sup> myocarditis,<sup>1</sup> metabolic syndrome,<sup>3</sup> constipation,<sup>11</sup> epileptic seizures,<sup>5</sup> diabetes ketoacidosis and neuroleptic malignant syndrome.<sup>2</sup> Also, this medication needs close monitoring<sup>7</sup> to detect and prevent complications.<sup>6</sup> Mental health nurses play a vital role in the management of clozapine. It is essential that mental health nurses know the adverse effects of clozapine medication, to monitor and prevent complications<sup>12</sup> and to provide psycho-education to the patients.<sup>4</sup> However, to date, just one study specifically examined the psychiatric nurses' knowledge of this medication.

This cross-sectional quantitative study aimed to assess the mental health nurses' knowledge of clozapine medication.

A paper-based survey questionnaire was distributed to 209 mental health nurses, including 17 fourth year internship nurses working in North Dublin Mental Health Services. This study included the mental health nurses working in both inpatient and community mental health settings such as acute admission units, community mental health teams, rehabilitation hostels, home-based treatment teams, old age psychiatric units, day hospitals and clozapine clinics. One hundred and twenty-nine nurses completed the questionnaire with a response rate of 61.7%. The questionnaire was originally developed by De Hert et al., (2016) with 18 questions, and a shortened version of the clozapine knowledge questionnaire with 12 questions was utilised in this study after permission was sought.

The mean and standard deviation for knowledge of clozapine medication was 6.7 and 1.6. Regarding the knowledge of clozapine medication, 53.5% of participants scored above 6 out of 12 questions on various areas of knowledge of clozapine medication including adverse effects, interaction with smoking and other medications and monitoring. Also, our results indicated that over 40% of mental health nurses had not received sufficient education on clozapine medication during their formal education. This study identified gaps in knowledge on clozapine medication concerning adverse effects such as myocarditis, epilepsy and metabolic syndrome. This study also found that mental health nurses' experience of clozapine medication and their formal education about clozapine medication did not influence their knowledge of clozapine medication.

**Table 1 - Nurses' Knowledge of Clozapine**

Scores on individual questions by topic	Correct answers		Incorrect answers	
	Count	%	Count	%
<b>Type of compound</b>				
Type of compound (Q 1)	127	98.4%	2	1.6%
<b>Constipation</b>				
Constipation (Q 2)	97	75.2%	32	24.8%
<b>Epilepsy</b>				
Epilepsy (Q 3)	38	29.5%	91	70.5%
<b>Agranulocytosis</b>				
Agranulocytosis symptoms (Q 4)	68	52.7%	61	47.3%
Agranulocytosis monitoring (Q 6)	69	53.5%	60	46.5%
<b>Intoxication</b>				
Intoxication smoking (Q 5)	100	77.5%	29	22.5%
Intoxication omeprazole and caffeine (Q8)	46	35.7%	83	64.3%
<b>Metabolic syndrome</b>				
Metabolic syndrome risk of diabetes (Q 7)	59	45.7%	70	54.3%
Metabolic syndrome clozapine risks (Q 11)	45	34.9%	84	65.1%
<b>Monitoring</b>				
Monitoring - first 18 weeks (Q 9)	122	94.6%	7	5.4%
Monitoring yearly (Q 10)	89	69.0%	40	31.0%
<b>Myocarditis</b>				
Myocarditis risk (Q 12)	6	4.7%	123	95.3%



This study highlighted a significant gap in mental health nurses' knowledge of clozapine medication that needs to be improved in order to provide psycho-education to the patients. This study emphasises the need for adding more education on clozapine medication at the undergraduate educational level and by providing an educational package at the service level.

#### REFERENCES

Available on request.

#### PRESENTED

As an oral presentation by Sujatha Sanjeevi at the:-

- Nursing Show Case Day in Tayleur House, St. Ita's Hospital, Portrane, Co. Dublin on November 14th, 2019.
- 'Reflect, Recover, Renew: Celebrating the International Year of the Nurse and the Midwife in Ireland 2020', Online Virtual Conference hosted by ONMSD, CNO, NMBI and IADNAM on October 1st, 2020.
  - ONMSD- Office of the Nursing and Midwifery Services Director
  - CNO- Chief Nursing Officer
  - NMBI- Nursing and Midwifery Board of Ireland
  - IADNAM- Irish Association of Directors of Nursing and Midwifery

#### SOURCE

Issues in Mental Health Nursing. 2020 Aug 7:1-8. <https://doi.org/10.1080/01612840.2020.1789786>



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## An Evaluation of the Skills Group Component of DBT-A for Parent/Guardians - A Mixed Methods Study

### ABSTRACT

Previous research indicates that dialectical behaviour therapy for adolescents (DBT-A) is effective in treating emotionally dysregulated adolescents with self-harm and/or suicidal ideation. As part of the DBT-A programme, parents attend the weekly skills group with their child. However, few studies have evaluated parental outcomes in DBT-A. This multi-site study aims to explore the outcomes and experiences of parents who participated in a 16 week DBT-A programme in Ireland.

The study was conducted in community-based child and adolescent mental health services (CAMHS) in the national public health system in Ireland. Participants were parent/guardians of adolescents attending a DBT-A programme in their local CAMHS. Participants attended the group skills component of the DBT-A programme. This study utilised a mixed methods approach where both quantitative and qualitative data were collected from participants. Self-report measures of burden, grief and parental stress were completed at pre-intervention, post-intervention, and 16 week follow-up. Qualitative written feedback was also obtained at post-intervention. The data were analysed using multilevel linear mixed effects models and content analysis.

One hundred participants (76% female) took part in this study. Significant decreases were reported for objective burden, subjective burden, grief and parental stress from pre- to post-intervention ( $p < 0.01$ ). Participants reported that the skills component of DBT-A was useful in meeting their own needs and the needs of their child.

DBT-A shows promise for parents as well as their adolescent children. Future studies should evaluate changes to family relationships following completion of the programme and also include controlled comparison groups.

### FUNDING

This research has received funding from the National Office for Suicide Prevention, Health Service Executive.

### SOURCE

Irish Journal of Psychological Medicine. 2020 Jan 24:1-9.





## Evaluating the National Multi-Site Implementation of Dialectical Behaviour Therapy in a Community Setting - A Mixed Methods Approach

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 Gillespie, C.,<sup>2</sup>  
 Kells, M.,<sup>3</sup>  
 Swales, M.,<sup>4</sup>  
 Spillane, A.,<sup>2</sup>  
 Hurley, J.,<sup>2</sup>  
 Hayes, A.,<sup>2</sup>  
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 National Suicide Research Foundation and School of Public Health, University College Cork<sup>5</sup>

### ABSTRACT

The implementation of evidence-based interventions for borderline personality disorder in community settings is important given that individuals with this diagnosis are often extensive users of both inpatient and outpatient mental health services. Although work in this area is limited, previous studies have identified facilitators and barriers to successful Dialectical Behaviour Therapy (DBT) implementation. This study seeks to expand on previous work by evaluating a co-ordinated implementation of DBT in community settings at a national level. The Consolidated Framework for Implementation Research (CFIR) provided structural guidance for this national level co-ordinated implementation.

A mixed methods approach was utilised to explore the national multi-site implementation of DBT from the perspective of team leaders and therapists who participated in the co-ordinated training and subsequent implementation of DBT. Qualitative interviews with DBT team leaders (n=8) explored their experiences of implementing DBT in their local service and were analysed using content analysis. Quantitative surveys from DBT therapists (n=74) examined their experience of multiple aspects of the implementation process including orienting the system, and preparations and support for implementation. Frequencies of responses were calculated. Written qualitative feedback was analysed using content analysis.

Five themes were identified from the interview data: team formation, implementation preparation, client selection, service level challenges and team leader role. Participants identified team size and support for the team leader as key points for consideration in DBT implementation. Key challenges encountered were the lack of system support to facilitate phone coaching and a lack of allocated time to focus on DBT. Implementation facilitators included having dedicated team members and support from management.

The barriers and facilitators identified in this study are broadly similar to those reported in previous research. Barriers and facilitators were identified across several domains of the CFIR and are consistent with a recently published DBT implementation framework. Future research should pay particular attention to the domain of characteristics of individuals involved in DBT implementation. The results highlight the importance of a mandated service plan for the co-ordinated implementation of an evidence-based treatment in a public health service.

### FUNDING

This research has received funding from the National Office for Suicide Prevention, Health Service Executive.

### SOURCE

BMC Psychiatry. 2020 May 14;20(1):235.



## Dialectical Behaviour Therapy Skills Reconsidered - Applying Skills Training to Emotionally Dysregulated Individuals Who Do Not Engage in Suicidal and Self-Harming Behaviours

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### ABSTRACT

Dialectical behaviour therapy (DBT) is an evidence-based treatment for borderline personality disorder (BPD) but is an intensive treatment with significant health service costs. Access to DBT can sometimes be restricted due to limited resources. Positive results have been reported for the use of DBT skills training (DBT-ST), one of the four modes of standard DBT, in the treatment of individuals with BPD who self-harm. This study evaluates DBT-ST for a subgroup of individuals attending community mental health services who may have a diagnosis of BPD (or emerging BPD traits) but who are not actively self-harming.

Participants in this study were 100 adults attending community mental health services with a diagnosis of BPD, emerging BPD traits or emotion dysregulation who were not actively self-harming. The majority of participants were female (71%), aged 25-34 years (32%), single (48%) and unemployed (34%). Participants partook in a 24 week DBT-ST intervention delivered by DBT therapists. Outcome measures included the Difficulties in Emotion Regulation Scale (DERS), the DBT Ways of Coping Checklist (DBT-WCCL) and the Five Facet Mindfulness Questionnaire (FFMQ). Measures were administered at pre- and post-intervention.

Significant reductions in emotion dysregulation (DERS) and dysfunctional coping (DBT-WCCL) scores were reported from pre- to post-intervention ( $p < 0.001$ ). A significant increase in mindfulness scores (FFMQ) and DBT skill use (DBT-WCCL) was also observed ( $p < 0.001$ ). However, the drop-out rate was high (49% at post-intervention).

The results of this uncontrolled study suggest that a standalone 24 week DBT-ST intervention may have a beneficial impact in terms of a reduction of emotion dysregulation and dysfunctional coping, and an increase in mindfulness and DBT skills use in patients with BPD/emerging BPD traits who are not currently engaging in self-harm. Adequately powered randomised controlled trials are required to determine treatment efficacy in comparison to standard DBT for this population.

### FUNDING

This research has received funding from the National Office for Suicide Prevention, Health Service Executive.

### SOURCE

Borderline Personality Disorder and Emotion Dysregulation. 2020 Jan 30;7:3.



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## Psychiatric Considerations on Infanticide

### ABSTRACT

Infanticide is not a new concept. It is often confused with child murder, neonaticide, filicide or even gendicide. Each of these concepts has to be defined clearly in order to be understood. Through time, reasons for infanticide have evolved depending on multiple factors such as culture, religion, belief systems, or attempts to control the population.<sup>1</sup> It was once seen as a moral virtue. So what has changed?

Between January 2020 and May 2020, a literature search based on electronic bibliographic databases as well as other sources of information (grey literature) was conducted in order to investigate the most recent data on infanticide and child murder, especially the newest socio-economic and psychiatric considerations as well as the different reasons why a mother or a father ends up killing their own child and the Irish situation.

Recent works on the subject demonstrate how some new socio-economic factors<sup>2</sup> and family considerations<sup>3</sup> impact on infanticide. Mental illness,<sup>4</sup> especially depression and psychosis, is often part of the picture and represents a very high risk factor to commit infanticide and filicide. Fathers and mothers do not proceed the same way nor for the same reasons when they kill their offspring.<sup>5</sup> Neonaticide and infanticide are almost always committed by women. A recent case in Ireland (2020) proves how filicide remains an actual problem.<sup>6</sup>

Filicide is a relatively rare event, and therefore particularly impacts both the public and the press when it occurs. Infanticide does not result from a unique cause, but from multiple factors (some being well known, some remaining hypothetical). Psychopathological and socio-economical parameters associated with peculiar family backgrounds are currently prevalent. To help and prevent infanticide, screening for psychiatric disorders and risk factors and treating or offering assistance to parents at risk should be implemented.

### REFERENCES

Available on request.

### PRESENTED

As an oral presentation by Dr. Anne-Frederique Naviaux at the Twined International Conference on Mental Health 2020 in Mons, Belgium which took place online on September 10th, 2020.

### SOURCE

Psychiatria Danubina 2020;32(Suppl. 2):201-263.



## Females with Autism Spectrum Disorder - Accurate Identification and Diagnosis of the Phenotype

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### INTRODUCTION

There is a growing demand on diagnostic and intervention services,<sup>1,2</sup> and while delays in diagnosis are common regardless of gender, females with Autism Spectrum Disorder (ASD) appear particularly disadvantaged through under-recognition, misdiagnosis or delayed diagnosis.<sup>3,4</sup> ASD symptomology is significantly less likely to be recognised in girls<sup>5,6</sup> and failure to diagnose high-functioning females has been proposed to be a result of unconscious gender bias among diagnosticians.<sup>7</sup>

### OBJECTIVE

The objective of this study is to encourage clinicians to review their diagnostic assessment of females as the implications of unidentified ASD in girls are serious, both as a consequence of neglect of their specific needs, but also as a result of potentially co-occurring conditions.<sup>8</sup>

### METHODOLOGY

This paper explored literature pertaining to the identification and diagnosis of females with ASD. Findings from the literature and the potential influence it holds on best practice guidelines for diagnosing ASD are outlined below.

### RESULTS

Gender biases in measures used to diagnose ASD have been queried given the inclusion of predominantly male samples in the development and standardisation of gold standard diagnostic assessment instruments and screeners.<sup>9</sup> Although, current Autism Diagnostic Interview Revised (ADI-R) and Autism Diagnostic Observation Schedule (ADOS) scores show no sex differences for ASD severity<sup>10</sup> it has been observed that the utilisation of extreme cut-offs as criteria for an ASD diagnosis may fail to identify many affected females.<sup>7,11</sup>

In assessing for ASD in females, clinicians must rely upon best practice methods and evidence-based assessment while being mindful of potential differences in symptom manifestation in females with the disorder.<sup>12,13,14,15</sup> Separately considering male and female profiles of performance on clinical tools may be helpful in order to more accurately characterise potentially sex-specific deviations from prototypical behaviour.<sup>16</sup>

More specifically, it is suggested that clinicians;-

- Review literature regarding female ASD presentation under the triad of impairment.
- Examine the intensity and quality of a female's interests even in situations in which the interests present as typical or developmentally appropriate.<sup>12</sup>
- Consider employing specific questions<sup>12</sup> as part of a female ASD assessment including;-
  - "How are these symptoms or behaviours impacting on everyday life or level of functioning?"
  - "Are the symptoms or behaviours explained by any other condition?"
  - "Does engagement in the activity cause disruption in social, academic, or occupational activities?"
  - "What occurs when she is prevented from engaging in the activity or interest?"
- Obtain information regarding history of functioning across multiple social contexts and self-report of social deficits and difficulties, which might include reports of social confusion, isolation, bullying by peers, and persistent attempts to compensate for social deficits through a use of a variety of strategies.<sup>12</sup>
- Avoid looking for social isolation on the playground given the female "camouflage" theory.<sup>17</sup>
- The Social Responsiveness Scale-Second Edition (SRS-2)<sup>18</sup> could potentially prove useful in the assessment of ASD in females with a subtle symptom presentation.
- The CONNERS Comprehensive Behaviour Rating Scale<sup>19</sup> is another helpful tool to look at specific behaviours and to aid with differential diagnosis.

### CONCLUSION

Unfortunately, to date, there are no widely used clinician-rated observational tools which are designed to take into account sex differences.<sup>16</sup> More research is needed into the female phenotype of ASD to aid with the development of appropriate instruments to detect and ascertain the female with ASD.<sup>20</sup>

### REFERENCES

Available on request.

## Parental Experience of the Autism Spectrum Disorder Assessment Process in Donegal

Anderson, N.,<sup>1</sup>  
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### INTRODUCTION

The aim of this study was twofold, firstly, to review satisfaction levels with the Autism Spectrum Disorder (ASD) assessment and diagnostic process with the Early Intervention Teams (EIT) in Co. Donegal, and secondly, to investigate the lived experience of parents who had gone through the ASD assessment and diagnostic process.

### METHODOLOGY

Thirty nine parents completed the questionnaires and thirteen parents participated in semi-structured interviews which were analysed using thematic analysis.

### RESULTS

The mean age at diagnosis was 3.35 years (SD=1.17, range 2-6 years). Twenty six per cent of parents were very satisfied with the assessment process, 43% were satisfied, 13% were neither satisfied nor unsatisfied, 8% were unsatisfied and 10% were very unsatisfied.

An examination of all available EIT data for Co. Donegal found that the mean length of time on the assessment pathway was 10 months. The majority of parents reported that a Psychologist (n=35) and an Occupational Therapist (n=25) were present at the ASD diagnostic feedback appointment. A moderate number of parents reported that a Speech and Language Therapist (n=16) and a Key Worker (n=17) were present, with small numbers reporting that they could not remember or did not give an answer.

Eighty five per cent of parents reported that no one else (n=33) should have been involved in the ASD assessment. Thirty two per cent of parents were very satisfied with the diagnostic feedback process, 45% were satisfied, 10% were neither satisfied nor unsatisfied, 1% were unsatisfied and 9% were very unsatisfied.

Qualitative data analysis revealed four themes relevant to the aim of the study, indicating what is impactful on parental experience;

- 1). The supports available and not available
- 2). Staff qualities and the therapeutic relationship *"It was the right people. If it was strangers sitting telling us and we never had that relationship, it would be different... It was the way it should have been."* (PARENT C)
- 3). The quality of the service provided *"every session was useful, just not enough sessions and when members of the team were off on maternity or sick leave the resources weren't there to replace them. That was frustrating, when there is maternity leave, staff should be there to take over so that you're not really in limbo just for so long."* (PARENT A)
- 4). The final theme identified that the ASD pathway is an emotionally tough experience for parents *"it is heartbreaking, it's still heartbreaking even though in your heart you know, and you're just clinging on to a little, little bit of hope that someone is going to tell you that you were wrong all along but you're not."* (PARENT E)

### CONCLUSIONS

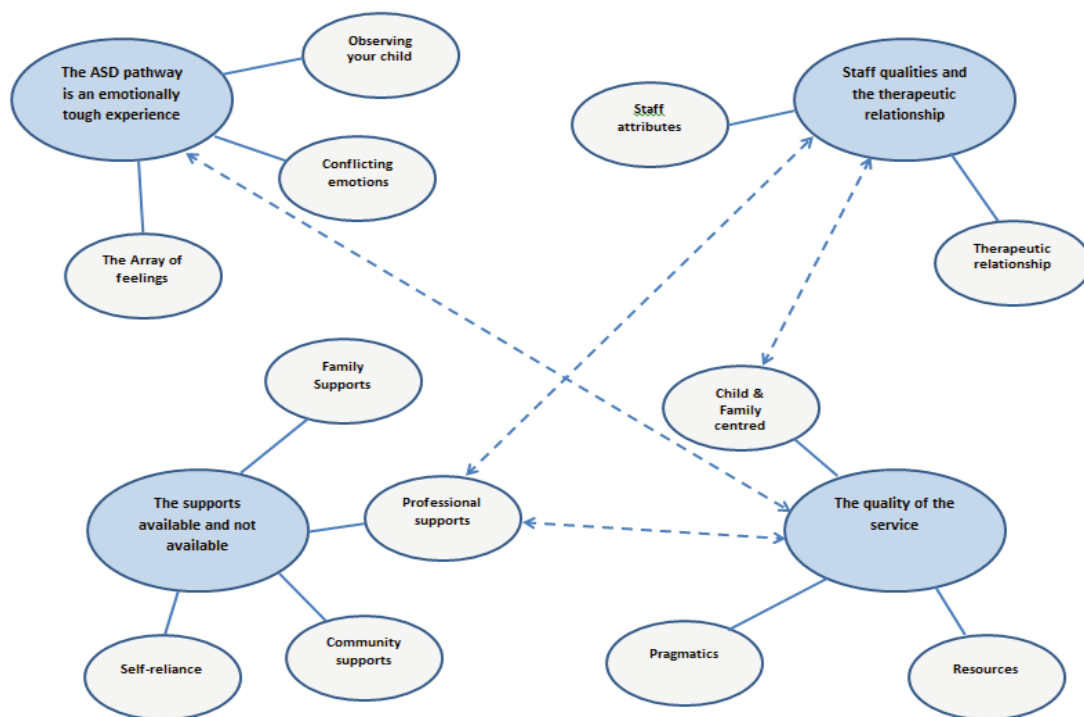
In conclusion, going through the ASD pathway is an emotionally tough experience for parents. They need to be held and supported by staff who are knowledgeable, kind and gentle, in a service that is well-resourced, pragmatic and most of all child and family-centred. We have reflected on and learned from the rich qualitative accounts of the parents' lived experiences and have implemented some changes in practice which we hope will add value to other parents on their journey through the ASD assessment pathway.

### REFERENCES

Available on request.



Figure 1 - Thematic Map



**PRESENTED**

At the CHO1 Psychology Research Day in the Lakeside Centre, Ballyshannon, Co. Donegal on March 4th, 2020 by Nóra Anderson and Dr. Karen Espey.

**Acknowledgement**

We are very grateful to the parents who took the time and effort to contribute to this study, without them we would not be here. We sincerely hope our research findings have accurately reflected their experiences.

## Group versus Individual Physiotherapy Treatment in the Management of Rotator Cuff Tendinopathy - A Clinical Trial in Primary Care

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### INTRODUCTION

Shoulder pain is a common and disabling musculoskeletal disorder seen in Primary Care Physiotherapy. Exercise-based treatment is effective for managing rotator cuff tendinopathy.<sup>1</sup> Group-based and individual physiotherapy treatments have been found to have similar outcomes in terms of pain and disability in delivering exercise interventions for musculoskeletal disorders.<sup>2</sup> Group treatment may be more resource efficient and result in decreased use of secondary care when compared to individual physiotherapy.<sup>3,4</sup> Group participants have reported positive experiences of this format.<sup>5</sup> There has been limited evidence comparing group versus individual treatment in the management of rotator cuff tendinopathy. The primary aim of this trial is to investigate whether group exercise is as effective as multi-modal one-to-one physiotherapy using the Shoulder Pain and Disability Index (SPADI) to assess changes in pain and disability from baseline to 6 weeks, 12 weeks and 24 weeks. Secondary outcome measures used were the QuickDASH (QDASH), Constant-Murley score and the Patient Global Rating of Change (PGROC).

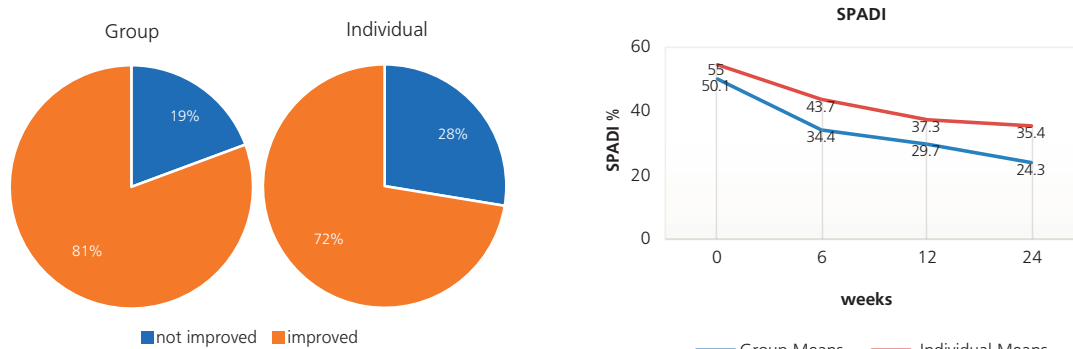
### METHODOLOGY

A two-arm interventional, assessor-blinded randomised trial was undertaken. Sixty nine patients (49 women, 20 men) with shoulder pain were recruited from the waiting list of a Primary Care Physiotherapy Department, screened for eligibility and provided informed consent to participate in the study. Participants were randomised into the group exercise or individual arms of the study. Eligibility criteria for the study included a history of lateral arm pain - either traumatic or insidious. Participants were screened for presence of rotator cuff tendinopathy using resisted tests of the rotator cuff and a cluster of shoulder tests.<sup>6</sup> Baseline measures of SPADI, QDASH and Constant-Murley were administered by an independent assessor blinded to group allocation. These measures plus the PGROC were reassessed at 6 weeks, 12 weeks and 24 weeks. The individual treatment participants received their physiotherapy according to their therapist's discretion in relation to the number of sessions and treatment provided. The group intervention consisted of 12 sessions (twice weekly for 6 weeks) of a 1 hour circuit-type exercise class.

### RESULTS

Sixty nine eligible participants were recruited (35 to group and 34 to individual treatment) of which 60 completed the trial. Losses to follow-up and missing data were accounted for using an intention to treat analysis. Median duration of shoulder pain was 9 months (IQR=9) and median age was 67 years (IQR=26). Both groups achieved a statistically significant level of change in SPADI at 6 weeks (mean change Individual=11.2, SD=18, Group=15.7, SD=21,  $p<0.001$  within group) and 24 weeks follow-up (mean change Individual=19.5, SD=20, Group=25.8, SD=21,  $p<0.001$  within group). There was no statistically significant between-group difference at either time-point ( $p=0.35$  at 6 weeks,  $p=0.21$  at 24 weeks). Similar results were noted for each of the other secondary outcomes (CMS and QDASH). Approximately 75% of patients reported a satisfactory outcome at 24 weeks, with a similar proportion unsatisfied (~25%) with outcome across the two groups.

**Figure 1 - Global Impression of Change at 24 Weeks**



### CONCLUSIONS

There was no difference in outcome for patients with rotator cuff tendinopathy managed either with group or individual physiotherapy. This study provides support for group-based exercise for rotator cuff tendinopathy in a Primary Care setting as an effective and potentially more resource-efficient service.



## PRESENTED

- As a poster presentation at the Irish Society of Rheumatology Conference in Naas, Co. Kildare on September 26th and 27th, 2019.
- As a poster presentation at the Irish Society of Chartered Physiotherapists Conference in Dublin on November 8th and 9th, 2019.
- As an oral presentation at the Irish Shoulder and Elbow Society Conference in Dublin on January 11th, 2020 by Karina Teahan.

## REFERENCES

Available on request.





## Experiencing Success - A Gymnastics Group Partnership Programme for Children with Attention Deficit Hyperactivity Disorder

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### INTRODUCTION

There is building evidence that engaging in physical activity has beneficial effects on the symptoms of Attention Deficit Hyperactivity Disorder (ADHD) including improvements in motor skills, executive functioning, enhancing self-esteem and improving social skills.<sup>1</sup> This Occupational Therapy (OT)-led gymnastics group programme provided a physical activity-based intervention for children with ADHD attending a community Child and Adolescent Mental Health Service (CAMHS). The intervention aimed to support children's sensory modulation needs; provide activities to target executive functioning and processing skills such as impulse control and inattention, working sequentially, and adapting performance; enhance motor co-ordination skills, develop social skills and provide a positive experience to increase confidence and self-esteem.

### METHODOLOGY

This was a partnership project led by CAMHS OT. External partners were Sports Active Wexford and Gymnastics Ireland. The partnership approach allowed for maximal use of resources to provide an efficient, acceptable and sustainable programme. Inclusion criteria were children with a diagnosis of ADHD aged 8 to 12. There were no exclusion criteria. This programme was evaluated using child and parent questionnaires.

### RESULTS

Seventeen children aged 8 to 12 with ADHD attended the programme weekly. There were 14 boys and 3 girls. There was a 95% attendance rate. Children and parents completed evaluations. The following is a selection of their feedback:-

#### Child Evaluations:

Ninety four per cent of children used a happy face to describe how they felt about the group. Children were asked about the best part of the group. The majority described 'making friends', 'playing with other kids' and 'being good at gymnastics.'

#### Parent Evaluations:

One hundred per cent of parents reported that their child enjoyed the group and would recommend the group for other children with ADHD:

*"It made her happy. She enjoyed it, looked forward to it every week." "My child loved the group. She felt relaxed, made friends."; "Much easier than bringing him to other new places."*

Any change in their child after the group? *"Ate better, slept better and was calmer"; "Teacher in school noticed the difference - she would smile all day;" "More family interaction and play has improved."*

Any changes in their child's motor skills or co-ordination? *"Yes, he seems willing to try new things/activities that involve co-ordination"; "His physio saw a massive improvement"; "Yes, definite better ability with balance."*

Getting on with other children: *"He realised he is not alone with ADHD and this in itself is very empowering"; "they are all on the same page in this little group."*

### CONCLUSIONS

The programme met its stated aims above. Children experienced success! The programme was efficient, acceptable and sustainable with funding received to continue the programme as normal treatment for children with ADHD attending this service. Further research is ongoing using standardised OT as well as Speech and Language Therapy outcome measures.

### REFERENCES

Available on request.

**PRESENTED**

- As an oral presentation at the Association of Occupational Therapists of Ireland, (Ann Beckett Award Presentation), in Dublin on April 12th, 2019 by Helen Corrigan.
- As an oral presentation at the Health and Social Care Professional Conference in Dublin on October 1st, 2019 by Helen Corrigan.
- As a poster presentation at the European Society of Child and Adolescent Psychiatry 18th International Congress in Vienna, Austria on July 1st, 2019.

**FUNDING**

This partnership project was part-funded by HSE South, Sports Active Wexford and Gymnastics Ireland.



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## “It’s Fun to Fly” - Occupational Therapy Outcomes from a Gymnastics Group Intervention for Children with Attention Deficit Hyperactivity Disorder

### INTRODUCTION

An initial pilot partnership Gymnastics Group Programme for children with Attention Deficit Hyperactivity Disorder (ADHD) demonstrated positive outcomes in non-standardised qualitative outcome measures - parent and child evaluation questionnaires. The initial intervention met its aims to support children’s sensory modulation needs; provide activities to target executive functioning and processing skills such as impulse control and inattention, working sequentially, and adapting performance; enhance motor co-ordination skills, develop social skills and provide a positive experience to increase confidence and self-esteem. For the subsequent group programme standardised Occupational Therapy (OT) outcome measures were also used pre and post-intervention to measure any change over the course of the intervention. The Model of Human Occupation Screening Tool (MOHOST)<sup>1</sup> was administered for each child at Week 1 and Week 10. Results demonstrated beneficial effects of the intervention on children’s participation, motivation, motor skills, process skills and social interaction.

### METHODOLOGY

This was a partnership project led by Child and Adolescent Mental Health Service (CAMHS) OT. External partners were Sports Active Wexford and Gymnastics Ireland. Based on initial data from the pilot project a standardised outcome measure, the MOHOST was utilised to determine any change over time. The MOHOST measures 12 children aged 8 to 12 with diagnosis of ADHD who attended and were assessed. Child and parent questionnaire evaluations were also used.

### RESULTS

Seventeen children aged 8 to 12 with ADHD attended the programme weekly. A Senior OT completed a MOHOST assessment on each child at Week 1 and Week 10. Children and parents also completed post-programme evaluations.

**Table 1 - Pre and Post-MOHOST - Wilcoxon Signed Ranks Text**

	Statistically significant change over time?
Motivation for Occupation	Yes
Pattern of Occupation	Yes
Communication and Interaction Skills	Yes
Process Skills	Yes
Motor Skills	Yes
Environment	No

#### Child Evaluations:

*“It’s fun to fly!”*

*“Helped me make more friends.”*

*“It’s fun to calm down.”*

*“The group is amazing, awesome, exciting and splendid!”*

#### Parent Evaluations:

*“They learned to interact with others, learned about rules of the group.”*

*“He made some friends and that is a wonderful achievement.”*

*“He’s takes notice of instructions and agility seems much better.”*

*“Great for kids and families to know they are not the only ones dealing with ADHD.”*

**CONCLUSIONS**

The outcomes of this intervention support further research. Health Service Executive (HSE) ethical approval was obtained to conduct further research with regard to both the OT outcomes of the programme as well as the Speech and Language Therapy outcomes. CAMHS Speech and Language Therapy (SLT) joined the programme to further examine the social communication and social interaction benefits of this treatment approach.

**PRESENTED**

- As an oral presentation at the Association of Occupational Therapists of Ireland, (Ann Beckett Award Presentation), in Dublin on April 12th, 2019 by Helen Corrigan.
- As an oral presentation at the Health and Social Care Professional Conference in Dublin on October 1st, 2019 by Helen Corrigan.
- As an oral presentation at the Gymnastics Ireland, Gymable Conference – ‘Gymnastics Opportunities for People with Disabilities,’ in Dublin on December 8th, 2019 by Helen Corrigan and Sheryl John.
- As a poster presentation at the European Society of Child and Adolescent Psychiatry 18th International Congress in Vienna, Austria on July 1st, 2019.

**REFERENCES**

Available on request.

**FUNDING**

Funding was received from HSE South, Sports Active Wexford and Gymnastics Ireland.



## The Provision of Offloading Footwear and Orthotics for the Management of Foot Ulceration and the 'At Risk' Foot in a Community Setting during COVID-19

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### INTRODUCTION

In 2019, the Podiatry service in CHO 3 secured SláinteCare funding for a podiatry-led pathway for the timely provision of aids and appliances to patients. In response to COVID-19, our service evolved to offer a Rapid Access Podiatry Clinic (RAPC) by our Foot Protection Team (FPT). This was rolled out across two sites - one in Co. Clare and the other in Co. Limerick.

Offloading is seen within international research as best practice for the management of foot ulceration and maintaining the healed 'In Remission' or 'At Risk' foot. Traditionally these patients, when seen within a community setting, are placed on a waiting list for an offloading device. The waiting time can be up to 4 years within some areas of CHO 3.

In response to this, our service worked closely with stakeholders to identify offloading devices with evidence base and held a stock across our two sites. Our goal was to provide the Right Care in the Right Place at the Right Time, in line with SláinteCare principles.

### METHODOLOGY

A review of the data from the two community podiatry clinical locations over a three month period (March 18th to June 18th, 2020) was conducted. All patients who presented to the RAPC were reviewed.

Patients eligible for the RAPC were defined as those requesting the service due to the presentation of a foot ulcer, concern of a developing foot ulcer, significant pain in the foot or those in the 'In Remission' phase having previously had a foot ulceration or another complication of diabetes e.g. Charcot Foot. Multiple ulcers on one patient were recorded as separate incidences. Data was collated and analysed in an excel sheet on encrypted HSE laptops.

### RESULTS

Within this period:-

- 26 patients had a combined total of 86 areas of ulceration recorded. 73 of these ulcers achieved 100% closure (84.9% of cohort). A further 8 ulcers had closed 50% or greater within the time frame.
- 64% of patients with an ulcer who were issued with an offloading device, achieved at least 50% wound closure. Exclusion criteria for the issuing of devices included gait instability, mobility issues (donning and doffing), falls risks and patient refusal.
- Of these ulcers, 82.9% had a neuropathic component, 15% were purely ischaemic and 100% of diabetic foot ulcers were under the care of an acute hospital service (e.g. vascular).
- Wound closure took an average of three weeks with 3 face to face visits and 1.5 virtual consultations per patient.
- We recorded 53 Emergency Department avoidances and no amputations within our cohort.

### CONCLUSIONS

There were many benefits to the flexibility of our project and the review of our RAPC. It allowed us to catalogue and determine the aetiology of our presenting wounds - a learning that we identified in previous research. This also provided us with the justification for specific offloading measures.

Provision of offloading devices prevented the deterioration of wounds which had a resulting decrease in acute hospital burden and ED presentations. Amongst other learnings, it was startling to note the frailty element of patient care that presented to the clinics in the latter months of this study. Subjective reports of reduced activity due to cocooning were reflected in reports of less certainty during gait and an increased nervousness in accepting offloading devices. This is undoubtedly a consideration that the team will bring into further practice.

### FUNDING

Funding was received from SláinteCare Integration Fund.

### Acknowledgement

We would like to thank the SláinteCare Integration Fund for its support during this period. Funding received has been vital for the flexibility of our service to provide the right care, at the right time, in the right place.



## Pilot Study on the Effects of Listening to Live Music Versus Listening to Recorded Music in the Outpatient Pain Clinic Waiting Room

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### INTRODUCTION

This mixed methods study explores the effects of listening to live music and listening to recorded music in the waiting room of two outpatient pain clinics in Limerick. Previous studies have examined how listening to music can affect our entire body, brain and nervous system. There is evidence demonstrating the effectiveness of both live and recorded music in a hospital setting. A comparison study of this kind has never been conducted in a pain clinic waiting room.

### METHODOLOGY

The study measured the impact of music on pain perception and emotional states, as well as attitudes towards music in the waiting room. Patients attending two similar outpatient clinics were included in the study. One clinic provided a playlist of recorded music curated by two of the authors with suggestions from patients. In the second clinic a music therapy student played live music using guitar, flute and voice. A self-administered questionnaire was completed by 200 consecutive adult patients attending the clinics.

### RESULTS

Patients reported lowered levels of anxiety, stress and pain in both clinics, as well as shorter waiting times and a more caring experience. Patients in the clinic with live music reported that the music lowered levels of stress, nervousness, agitation and pain more than in the recorded music clinic.

### CONCLUSIONS

This study is novel in providing information on listening to live music versus listening to recorded music in the context of the outpatient pain clinic. It confirms previous findings on how music is important to people living with pain and can be used to manage chronic pain experiences. Further research is warranted with a larger sample size, a control group, pre and post-testing, and studies of music in hospitals in a range of cultural contexts.

## My Self-Image and Your Interactions' - The Influence of the Preschool Educator's Image of the Child as a Learner on Children's Wellbeing and Involvement

Melia, R.,<sup>1</sup>  
Forkan, C.<sup>2</sup>

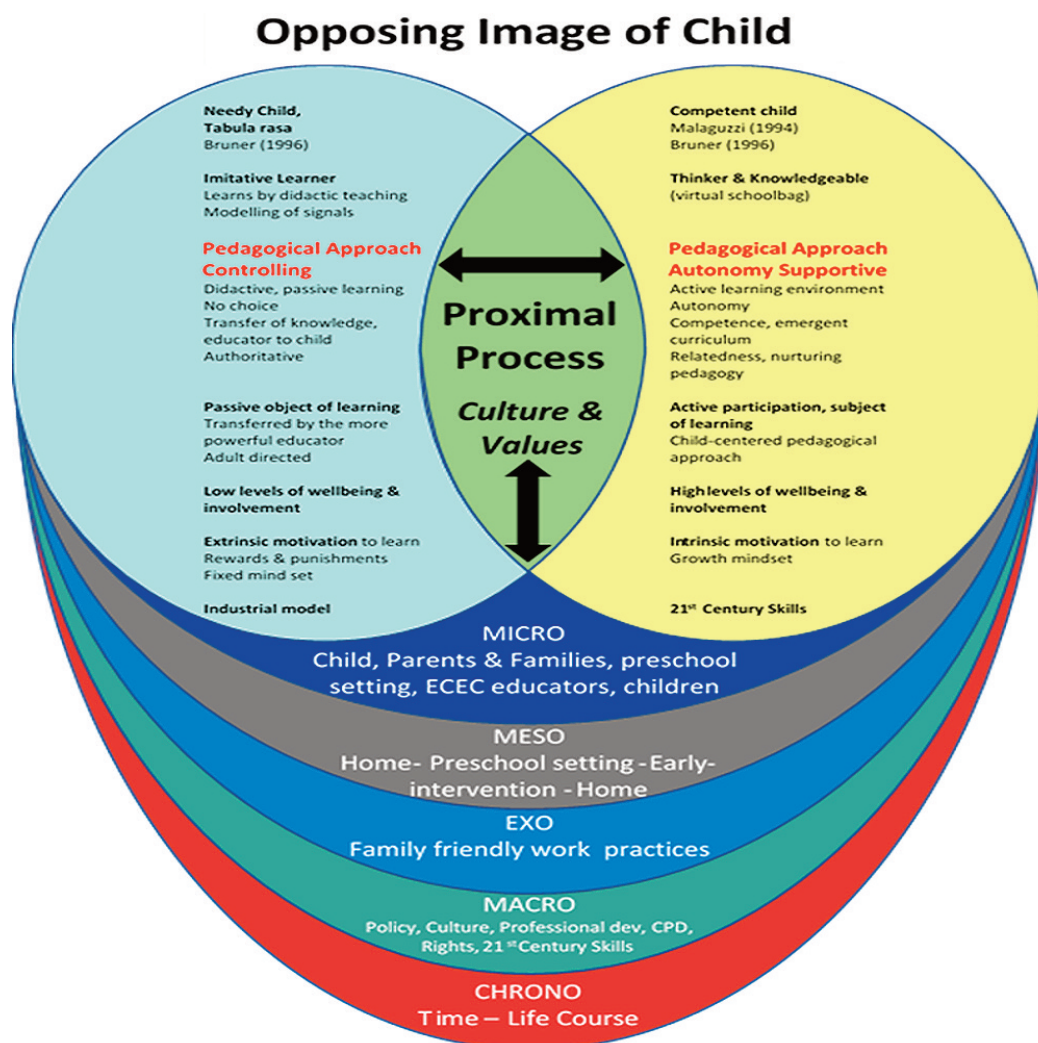
National Office,  
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Inspectorate,  
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Centre, National  
University of  
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### ABSTRACT

The number of young children attending out of home childcare and education settings before starting in primary school has been continually increasing since the 1960s and has become the norm for most children in Ireland and in developing countries.<sup>1</sup> This has resulted in a definite cultural shift as this is the first generation in the Organisation for Economic Co-operation and Development (OECD) countries where most young children spend a large proportion of their early childhoods in out of home care.<sup>2</sup> Research confirms that the first 1,000 days of a child's life have been identified as a unique period of opportunity, when the foundations of optimum health, growth and neurodevelopment across the lifespan are established.<sup>3</sup> With more children attending centre based Early Childhood Education and Care (ECEC) settings, it is the quality of these early experiences which is crucial for optimum growth and development. Therefore, the introduction in 2011 of a universal free preschool year for all children in Ireland prior to attending primary school was heralded as a significant commitment to children and families. As a result of this policy initiative there are now increasing numbers of young children accessing preschool provision. However, despite increased access and increased investment in ECEC provision, little is known about the quality of preschool children's experiences, or the impact of the pedagogical approach on children's levels of wellbeing and involvement in their learning. Equally, there has been no evaluation of the quality or the effectiveness of the preschool provision in supporting children's development of 21st century skills.

This thesis explored how the preschool educator's image of the child as a learner influences her/his pedagogical approach and how the educator's pedagogical approach subsequently impacts on children's levels of wellbeing and involvement in their meaning making processes.

Figure 1 - Learning for Wellbeing (Melia and Forkan, 2020)





The study, a mixed method, ethnographic comparative study, was conducted across three preschool setting types, Montessori, Play-based and Reggio inspired in the West of Ireland and Boston. An observation tool entitled 'Assessing for Learning and Development in the Early Years using Observation Scales, Reflect Respect Relate'<sup>4</sup> was used to measure quality indicators; **Relationships** and **The Active Learning Environment** and quality outcomes; **Wellbeing and Involvement**. The findings identify that children's levels of wellbeing and involvement are high when their basic needs for autonomy, competence and relatedness are met in an autonomy supportive, child-centred learning environment. In comparison, when the learning environment is controlling and the approach to teaching and learning is didactic and adult-led, children's levels of wellbeing and involvement are low. A tentative practice design framework was developed which can be applied to support improved quality practice with increased levels of wellbeing and involvement for children in early years settings.

The findings from this study have significant implications for policy and practice and provide a compelling argument for the evaluation of the quality of preschool provision in Ireland.

#### PRESENTED

As an oral presentation by Dr. Rita Melia at the:-

- Early Childhood Education Conference in Moscow State University on May 12th, 2017.
- Early Childhood Ireland Conference in Croke Park Conference Centre, Dublin on April 14th, 2018.
- European Early Childhood Education Research Association Conference in the University of Thessalonica in Greece on August 23rd, 2019.

#### FUNDING

Funding was received from the Irish Research Council and from the National University of Ireland Fulbright Scholarship.

#### SOURCE

Collection: NUI Galway Theses (PhD Theses) available on ARAN at: <http://hdl.handle.net/10379/15912>





## E-Cigarette and Smoking Use among Adolescents in Ireland - A Focus Group Study

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### INTRODUCTION

With the growth in popularity of e-cigarettes in recent years, there is concern in terms of their use by young people. Nicotine exposure can harm adolescent brain development, and may act as a 'gateway' to smoking initiation among the youth.<sup>1</sup> There is also uncertainty in terms of the long-term health effects of e-cigarettes and their effectiveness in terms of helping smokers to quit.<sup>2,3</sup> Although new legislation is planned, at the time of the study, there were no mandatory age restrictions on the sale of e-cigarettes and their marketing and use of sweet flavours may promote adolescent use.

### OBJECTIVE

This study aimed to obtain an in-depth understanding of current knowledge, attitudes and behaviour of schoolchildren in terms of e-cigarette use.

### METHODOLOGY

Eight focus groups of transition year students were undertaken in a convenience sample of three schools in three different counties and two different HSE regions (Sligo, Cavan, Louth). This included an all-boy, an all-girl, and a mixed gender school. A total of 76 school children participated in the focus groups. Each focus group discussed vaping among schoolchildren in Ireland, attitudes to e-cigarettes/vaping, the accessibility and availability of e-cigarette products, the health effects of vaping, and the combined use of vaping, smoking and alcohol. All focus groups were audio recorded and transcribed, from which a number of key themes were identified following a grounded theory approach.

### RESULTS

E-cigarettes appear popular with most participants aware of schoolchildren that used e-cigarettes and were also aware of the numerous e-cigarette flavours. However there was uncertainty in terms of the health effects of e-cigarettes and a lack of information about e-cigarettes from school education programmes on smoking. Few participants had discussed e-cigarettes with their parents whereas most had discussed smoking. There was also a lack of awareness of e-cigarette warning labels. Underage discos are a key location where participants reported that e-cigarettes are used. E-cigarettes are also used at a variety of other locations where their use can be concealed. E-cigarettes appear to be relatively easy to access. Social media was the most popular way to obtain them with children using 'Snapchat' and 'Instagram' to buy and sell products between themselves. They were also purchased in shops such as discount stores and vape shops, where any age restrictions were not difficult to overcome. Online purchase was less popular. Most had seen e-cigarettes advertised on social media, in retail shops and on the internet. Social media was also being used to view videos of people doing 'vape tricks' and also offering discount codes. Some had also seen 'pop up' advertisements online. Alcohol consumption appears to be common among schoolchildren, particularly for those attending teenage discos. Smoking, alcohol consumption, and use of e-cigarettes appear to be interlinked. Most participants felt that e-cigarette users also smoked cigarettes with only a minority thinking that users just vaped. Cigarettes remain more popular than e-cigarettes, particularly at teenage discos.

### CONCLUSIONS

With limited current regulations governing their use, schoolchildren are being exposed to e-cigarettes and their use is interlinked with smoking and alcohol. Key recommendations included the need to introduce legislation to impose age restrictions on e-cigarette sales, providing more information for parents and children on the health effects of e-cigarettes, developing children's assertiveness skills, reviewing the governance of underage discos, reviewing advertising regulations, and imposing restrictions on flavours and product placement.

### REFERENCES

Available on request.



Gamage, N.<sup>1</sup>  
Darker, C.,<sup>2</sup>  
Smyth, B.<sup>2</sup>

Health Service  
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## Improvement in Psychological Wellbeing among Adolescents with a Substance Use Disorder Attending an Outpatient Treatment Programme

### INTRODUCTION

Adolescents with substance use disorders (SUDs) exhibit high rates of co-morbid psychological problems.

### OBJECTIVE

This study aimed to examine the impact of an outpatient substance use treatment programme upon the psychological wellbeing of adolescents.

### METHODOLOGY

A prospective study was carried out examining psychological symptoms in a group of adolescents attending the Youth Drug and Alcohol (YoDA) Addiction Service in Dublin. Participants were treated with evidenced-based psychological models such as cognitive behavioural therapy, motivational interviewing and systemic family therapy. The Becks Youth Inventory was utilised to assess psychological symptoms at treatment entry and repeated three months later at follow-up.

### RESULTS

Among 36 adolescents who were included in this study, poly-substance misuse was the norm. Almost three-quarters of them had a cannabis use disorder (CUD). There were significant reductions in mean subscale scores of depression (56.0 to 50.8,  $P=0.003$ ), anger (55.2 to 49.5,  $P<0.001$ ) and disruptive behaviour (61.6 to 56.5,  $P=0.002$ ) at follow-up.

Although there wasn't a statistically significant reduction in mean scores for anxiety, we observed a significant proportion of participants ( $p=0.008$ ) improving and moving out of a moderate to severe symptom range when examined by category. This was also the case for self-concept ( $p=0.04$ ). Furthermore this study revealed a positive correlation between the reduction in days of cannabis use and reduction in depressive scores (Pearson correlation 0.49,  $P=0.01$ ) among those with a CUD.

### CONCLUSION

The findings indicate that substance use treatment for adolescents is associated with important psychological and behavioural improvements.



## The Impact of Self-Efficacy and Self-Oriented Perfectionism on Academic Procrastination

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### INTRODUCTION

Recent studies suggest that procrastination plays a prevalent role with students throughout their academic life. The present study examined the relationship between academic procrastination, self-efficacy, and self-oriented perfectionism.

### METHODOLOGY

One hundred and twenty eight student participants completed measures of academic procrastination, self-efficacy, and self-oriented perfectionism. It was predicted that low self-efficacy and high self-oriented perfectionism would be significantly associated with a tendency to procrastinate more.

### RESULTS

As expected, the results from the first outcome variable indicated a significant negative correlation between self-efficacy and procrastination, and a significant positive correlation between self-oriented perfectionism and procrastination. However, the results from the second outcome variable indicated contradictory results, as on this measure it was found that a significant positive correlation existed between self-efficacy and procrastination, and self-oriented perfectionism was not significantly correlated with procrastination. Self-efficacy was found to be the strongest predictor of procrastination throughout both of the analyses performed. Both of the main analyses revealed that gender and age were not significantly correlated with procrastination.

### CONCLUSION

This examination of academic procrastination may offer further insights into what potentially indicates students to have either a lower or a higher relationship to procrastination.

### PRESENTED

As an oral presentation by Sinéad Ryan at the Psychological Society of Ireland's 2020 Conference (online) on November 19th and 20th, 2020.



# The Relationship between Self-Efficacy and Perfectionism on Procrastination in the Workplace

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## INTRODUCTION

The purpose of the present study was to examine the relationship between self-efficacy and perfectionism on procrastination at work. After taking previous research literature into consideration, two hypotheses were predicted. First, it was hypothesised that participants exhibiting high levels of self-efficacy would display low levels of procrastination. Second, it was hypothesised that participants exhibiting high levels of perfectionism would display high levels of procrastination.

## METHODOLOGY

A convenience sample of 130 participants (53 Males, 77 Females) completed survey measures of procrastination, self-efficacy, and perfectionism. The sample consisted of employees working in a large public sector organisation in the Mid-West region of Ireland.

## RESULTS

The results indicated that neither hypothesis was supported.

### Hypothesis 1 was not supported

As expected, self-efficacy was found to be a strong predictor of procrastination. However, the results indicated a significant positive correlation between self-efficacy and procrastination, revealing that in this sample, high self-efficacy was associated with high procrastination. Thus, hypothesis 1 was not supported.

### Hypothesis 2 was not supported

The results indicated that perfectionism was not a significant predictor of procrastination and there was no significant correlation found between these variables in this sample. Therefore, hypothesis 2 was also not supported.

## CONCLUSION

Compared to the number of studies examining procrastination in students, relatively few studies have examined procrastination in employees. As procrastination at work is an under-researched area, this research study may offer further insights into the relationships between self-efficacy and perfectionism on procrastination in the domain of work.

## PRESENTED

As an oral presentation by Sinéad Ryan at the Psychological Society of Ireland's 2020 Conference (online) on November 19th and 20th, 2020.



# Cochrane Systematic Review of Physical Activity Interventions for Disease-Related Physical and Mental Health During and Following Treatment in People with Non-Advanced Colorectal Cancer

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## ABSTRACT

Colorectal cancer is the third most commonly diagnosed cancer worldwide. A diagnosis of colorectal cancer and subsequent treatment can adversely affect an individual's physical and mental health. Benefits of physical activity interventions in alleviating treatment side effects have been demonstrated in other cancer populations. Given that regular physical activity can decrease the risk of colorectal cancer, and cardiovascular fitness is a strong predictor of all cause and cancer mortality risk, physical activity interventions may have a role to play in the colorectal cancer control continuum. Evidence of the efficacy of physical activity interventions in this population remains unclear.

We searched the Cochrane Central Register of Controlled Trials, along with OVID MEDLINE, six other databases and four trial registries with no language or date restrictions. We screened reference lists of relevant publications and hand searched meeting abstracts and conference proceedings of relevant organisations for additional relevant studies. All searches were completed between June 6th and June 14th, 2019. We included randomised control trials (RCTs) and cluster-RCTs comparing physical activity interventions, to usual care in adults with non-advanced colorectal cancer. Two review authors independently selected studies, performed the data extraction, assessed the risk of bias and rated the quality of the studies using GRADE criteria. We pooled data for meta-analyses by length of follow-up, reported as mean differences (MDs) or standardised mean differences (SMDs) using random-effects wherever possible. If a meta-analysis was not possible, we synthesised studies narratively.

We identified 16 RCTs, involving 992 participants; 524 were allocated to a physical activity intervention group and 468 to a usual care control group. Type of physical activity included walking, cycling, resistance exercise, yoga and core stabilisation exercise. The quality of the evidence ranged from very low to moderate overall. We are uncertain whether physical activity interventions improve physical function compared with usual care. We found no evidence of effect of physical activity interventions compared to usual care on disease-related mental health (anxiety: SMD -0.11, 95% confidence interval (CI) -0.40 to 0.18; 4 studies, 198 participants; I<sup>2</sup> = 0%; and depression: SMD -0.21, 95% CI -0.50 to 0.08; 4 studies, 198 participants; I<sup>2</sup> = 0%; moderate-quality evidence) at short- or medium-term follow-up. We found no evidence of serious adverse events in the intervention or usual care groups. Minor adverse events, such as neck, back and muscle pain were most commonly reported. No studies reported on overall survival or recurrence-free survival and no studies assessed outcomes at long-term follow-up. We found evidence of positive effects of physical activity interventions on the aerobic fitness component of physical fitness (SMD 0.82, 95% CI 0.34 to 1.29; 7 studies, 295; I<sup>2</sup> = 68%; low-quality evidence), cancer-related fatigue (MD 2.16, 95% CI 0.18 to 4.15; 6 studies, 230 participants; I<sup>2</sup> = 18%; low-quality evidence) and health-related quality of life (SMD 0.36, 95% CI 0.10 to 0.62; 6 studies, 230 participants; I<sup>2</sup> = 0%; moderate-quality evidence) at immediate-term follow-up. These positive effects were also observed at short-term follow-up but not medium-term follow-up.

These findings should be interpreted with caution due to the low number of studies included and the quality of the evidence. Physical activity interventions may have no effect on disease-related mental health, may be beneficial for aerobic fitness, cancer-related fatigue and health-related quality of life up to six months follow-up. Where reported, adverse events were minor. Adequately powered RCTs with longer-term follow-up are required to assess the effect of physical activity interventions on the disease-related physical and mental health and on survival of people with non-advanced colorectal cancer. Adverse events should be adequately reported.

## FUNDING

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## SOURCE

Cochrane Database of Systematic Reviews 2020, Issue 5. Art. No.: CD012864.  
<https://dx.doi.org/10.1002/2F14651858.CD012864>



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## Pediatric Obesity, Addiction and Family Dynamics - Concept of Co-Obesity

### ABSTRACT

The obesity epidemic has been a crucial health concern over the past few decades. Multiple contributing factors have been identified at various levels: genetic, biological, environmental, social, economic etc. In many ways obesity presents some similarities with substance dependence and abuse. The term 'co-dependency' originates from the realm of addiction. Co-dependency mechanisms can also appear between parents and children and enable obesity.<sup>1</sup>

Between January 2020 and May 2020, a literature search based on electronic bibliographic databases as well as other sources of information (grey literature) was conducted in order to investigate the most recent data on obesity, addiction and co-dependencies. Some clinical examples of these concepts applied to everyday life were chosen to illustrate how they are all linked together, especially in terms of familial co-obesity (between children and parents).

Many studies link obesity and addiction, even though the Diagnostic and Statistical Manual of Mental Disorders<sup>2</sup> (DSM) does not list obesity as a psychiatric disorder. Both obesity and addiction share a common neural basis<sup>3</sup> and use the same reward pathways which have been described and studied through many works. Dopamine certainly plays an important part in that system. Pediatric obesity is particularly worrying but might offer an opportunity for intervention, and once tackled, reduce the severity of adult obesity. Working with children means working with families, and investigating intra-familial contributing dynamics. The concept of co-obesity emerged from the addiction model applied to pediatric obesity. Clinical examples illustrate an integrative biopsychosocial model of parent-child co-dependencies in obesity.

Co-obesity often emerges from great altruism, tolerance towards inappropriate and maladaptive behaviours and emotions that are difficult to manage. A new and promising model of intervention is developed, based on addiction techniques (withdrawal/abstinence) associated with behavioural strategies (distraction, alternative behaviours, distress tolerance, trigger avoidance and stress lessening)<sup>4</sup>.

### REFERENCES

Available on request.

### PRESENTED

As an oral presentation by Dr. Anne-Frederique Naviaux at the:-

- 5th Universal Scientific Education and Research Network (USERN) Congress and Prize Awarding Festival in Tehran, Iran which took place online on November 12th, 2020.
- The 20th International Conference on Neurology and Neuroscience in Barcelona, (Spain) which took place online from December 11th to 13th, 2020.

Accepted for presentation at the:-

- Obesity Conference 2021 to be held in Rome, Italy from March 22nd to 23rd, 2021.
- Premier Annual Summit on Positive Psychiatry and Mental Health to be held in Toronto, Canada from May 20th to 21st, 2021.

### SOURCE

International Journal of Recent Advances in Multidisciplinary Research. 2020 Sept;7(9):6172-6178.



## International Survey of Interval Cancer Audit and Disclosure in Cervical Screening

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### INTRODUCTION

In 2018 a high-profile legal case regarding an audit of invasive cervical cancers created a national controversy in Ireland. The resultant media coverage and political response created confusion and anxiety among the public regarding cervical screening and audit.

An Expert Reference group with international input was established to explore and design a revised/new process for invasive cervical cancer audit for the future.

### METHODOLOGY

To inform the process a survey was undertaken of international population-based cervical screening programmes to determine if and how they undertook audit, if women were asked for consent to slides being in audit, and whether results of audit were disclosed to women. Inclusion criteria were; national or regional population-based cervical screening programme; country/region population  $\geq$  population of Ireland; and identifiable contact. In May 2019 the questionnaire was sent to 22 regions/countries in Europe, Canada and Australia via a link embedded in an emailed invitation to participate. Two follow-up reminders were sent.

### RESULTS

Seventeen screening programmes completed the survey (response rate 77%). Eleven (64.7%) responding programmes have an audit process for invasive cervical cancers, 6 (35.3%) do not. Of the 11, 6(54.5%) carry out routine individual patient cancer review; 3 (27.2%) undertake routine programme-wide review, with calculation of interval cancer rates. Of the 11 who audit, 3(27.2%) carry out a blinded review, 4(36.4%) include control samples with cases when undertaking cytology review. Three (27.2%) countries/regions inform patients that a cervical cancer audit is taking place. Six (54.5%) countries/regions have an open disclosure (OD) policy for medical incidents; of these 4(66.7%) are mandatory. Of these 2(33.3%) have an OD policy that applies to interval cancers in screening. Three countries/regions (27.2%) have legal protection for interval cancers.

### CONCLUSION

Screening programmes carrying out audits differed in their approach and there is lack of consistency in audit practice internationally.



## Volume and Appropriateness of Increased Colposcopy Referrals in CervicalCheck following Audit Controversy

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### INTRODUCTION

The media and political storm surrounding the CervicalCheck crisis in 2018 generated confusion among women regarding cervical screening. The Minister for Health announced an additional smear test for any woman with concerns resulting in a surge in demand for tests and delays in results. During this period the rate of referrals to colposcopy increased.

### METHODOLOGY

We examined if the increase was significant and whether these referrals were appropriate by examining the positive predictive value (PPV) of Cervical Intraepithelial Neoplasia Grade 2+ (CIN2) before and during the controversy. If a woman having a smear test is anxious, smeaertakers can circumvent waiting for results by assigning urgent/non-urgent clinical referral to her test, generating a colposcopy referral irrespective of result or turnaround time.

### RESULTS

Comparing 2017/'18 with average of 2012/'17, there was an increase in 'clinical-urgent' referrals (CUR) (12.8% to 17.6%;  $p < 0.001$ ), 'clinical non-urgent' referrals (CNUR) (19.6% to 27.0%;  $p < 0.001$ ) and abnormal cytology (4.4% to 4.7%;  $p < 0.001$ ). Comparing September '17/May '18 with June '18/August '18, PPV of CIN2+ reduced for CUR (11.0% to 7.1%;  $p = 0.01$ ), CNUR (9.1% to 8.3% (ns)) and high-grade smears (74.1% to 68.1%;  $p = 0.05$ ).

The assignment of clinical referral was used significantly more often during the crisis, however PPV of these referrals demonstrates fewer significant histology findings. PPV of high-grade cytology shows that while cytology was the most efficient method of detecting CIN2+, PPV also fell. It is possible that in response to the controversy, screening laboratories erred on the side of caution by assigning higher smear results. Colposcopy referrals rose, many of which were unnecessary.

### CONCLUSION

Inappropriate referrals increase colposcopy waiting times, resulting in unnecessary investigations/treatments.





## International Survey of Invasive Interval Breast Cancer Audit Practices in the Screened Population

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### INTRODUCTION

In 2018 a high profile legal case regarding audit and disclosure of cervical cancers created controversy in Ireland. The resultant media coverage and political response created confusion and anxiety among the public regarding cancer screening and audit. An Expert Reference Group with international input was established to design a process for future invasive breast cancer audits in Ireland.

### METHODOLOGY

To inform the process a formal survey was undertaken to gather information from international population-based breast screening programmes on their processes for audit and review of interval breast cancers.

The survey was designed using an online GDPR compliant survey tool. In May 2019 an invitation to participate in the survey was sent to 23 regions/countries in Europe, Canada and Australia via a link embedded in an emailed invitation. Countries invited to participate met the following criteria: national/regional population-based breast screening programme; region/country population  $\geq$  population of Ireland; had an identifiable contact.

### RESULTS

Sixteen screening programmes responded (response rate 70%). Eleven (69%) have an audit process for interval breast cancers. Ten (62.5%) calculate the overall interval cancer rate. Ten conduct radiological reviews of individual interval cancers with 7(43.8%) conducting reviews of all cases. Two countries (12.5%) reported having an open disclosure policy that extends to the results of audits in screening.

### CONCLUSION

There is marked variation in approach to audit and open disclosure of interval breast cancers internationally. Results from the survey combined with a literature review and expert advice will inform the audit processes for invasive breast cancers in the screened population going forward.



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## Quality Health Promotion in the Youth Sector - Review of International Youth Strategy and Policy

### INTRODUCTION

The Health Quality Mark (HQM) is offered by the National Youth Health Programme (NYHP) of the National Youth Council of Ireland to youth organisations throughout Ireland. Developed in 1999, the HQM was the first quality assessment system for health promotion within the youth work sector and aims to acknowledge quality health promotion in youth organisations. The standards on which the HQM was formed were based on the principles and action areas of the Ottawa Charter.<sup>1</sup> The 12 HQM criteria are drawn from the World Health Organisation's health promoting schools initiative. All levels of the HQM award, gold, silver and bronze, include the development of a Health Promotion Policy and setting up a health promotion team within the youth organisation, followed by the submission of a portfolio showcasing how criteria have been met.<sup>2</sup>

### OBJECTIVE

The aim of this project was to update the HQM initiative in the context of recent policy developments. Documentation considered as potentially relevant to the review process comprised: national, cross-national and international policy on youth health and on the youth sector, and international quality marks or quality systems relevant to health promotion in the youth sector.

### METHODOLOGY

Given the focus on policy developments, Google and grey literature databases were used as the search engines. Key words included: health quality mark, quality mark, strategy, strategic plan, framework, youth, young people, children, adolescent and health. Grey literature searches were conducted via ProQuest, OpenGrey, RIAN, WorldCat, and Networked Digital Library of Theses and Dissertations using the terms 'health quality mark' and 'quality mark.' Reference lists from the identified sources were also screened. All documents were systematically reviewed for relevance to the HQM, to each specific HQM criterion, and to the principles and processes of HQM implementation.

### RESULTS

Fourteen quality marks, awards, frameworks, strategies and strategic plans related to health promotion in the youth sector were identified, none of which directly matched the HQM content, structure or implementation. Some of these were general, and others focused on specific health issues. The key findings were:-

- The HQM is in keeping with, and complementary to, cross-national youth health policy
- There was no identified example of a quality system relevant to health promotion in the youth sector that has the same, or similar, goals, or a sufficient evidence base to recommend specific changes in approach to the HQM
- The wide range of national policy relevant to youth health could guide youth organisations in addressing identified needs among their young people
- Two areas of activity emerged as requiring greater emphasis in the HQM, the participation of young people in the processes, and the evaluation of initiatives undertaken as part of the HQM process
- The HQM is consistent with the National Quality Standards Framework and they can serve to reinforce one another

In conclusion, with minor additions, the HQM is coherent and consistent with national and international policy, strategy, frameworks and quality systems relevant to Health Promotion in the Youth Sector.

### REFERENCES

Available on request.

### FUNDING

This research has received funding from the National Youth Health Programme, National Youth Council of Ireland.



Fitzpatrick, P.,<sup>1,2</sup>  
Byrne, H.<sup>1</sup>  
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## International Survey of Interval Cancer Audit and Disclosure in Bowel Screening - Need for International Consensus on KPIs and Audit Process

### ABSTRACT

BowelScreen is the National Bowel Screening Programme in Ireland. In 2017 an audit of interval cancers undertaken in the national cervical screening programme ran into difficulties over disclosure (voluntary at the time in Ireland), with high-profile court cases. This resulted in high profile media/political response with inaccurate information leading to public confusion about screening and audit. An Expert Reference Group with international input was set up with the objective of designing a process for invasive cancer audit for national screening programmes.

A survey was undertaken of international population-based bowel screening programmes to determine if they undertook audit of invasive bowel cancers, and if yes, how the audit was undertaken, if clients were asked for consent to audit, and whether audit results were disclosed to patients. Inclusion criteria were 1) National or regional population-based bowel screening programme 2) Country or region population  $\geq$  population of Ireland and 3) identifiable contact. The questionnaire was developed using SmartSurvey, a GDPR-compatible survey tool. It was sent to 20 regions/countries in Europe, Canada, New Zealand and Australia via a link embedded in an emailed invitation to participate. A reminder email was sent at 2 weeks.

Thirteen screening programmes completed the survey (response rate 65%) with 7 having an audit process for invasive interval bowel cancers. All 7 carry out audit post FOBT/FIT, while 6 of these also carry out post-colonoscopy colorectal cancer (PCCRC) audit. Four describe their audit process as routine programme-wide review, with calculation of interval cancer rates. One carries out routine individual patient cancer review, one carries out audit on a routine sample of screened population and one did not provide information. Six countries/regions carry out PCCRC audit. Of these, 3 carry out a routine programme-wide review, with calculation of interval cancer rates, 2 carry out routine individual patient cancer reviews and one did not provide information. Three of 7 programmes inform patients that an audit is taking place. One programme captures specific consent for audit; three capture as part of routine screening consent procedure. Only 3 have an open disclosure policy for medical incidents while 1 applies to interval cancers in screening. Two programmes have legal protection in place for interval cancers.

There is lack of consistency in the practice of audit in bowel screening internationally but PCCRC is emerging as the core KPI/audit measure. Most countries/regions do not have an open disclosure policy in relation to interval bowel cancers.

Establishing international consensus on PCCRC targets while developing a progressive open disclosure policy and reasonable medicolegal protection for screening programmes should be the goal.

### SOURCE

Gastroenterology May 2020;158(6):S-912. [https://doi.org/10.1016/S0016-5085\(20\)32966-8](https://doi.org/10.1016/S0016-5085(20)32966-8)



## Irish National Diabetic RetinaScreen Programme - Report of Five Rounds of Retinopathy Screening and Treatment Referrals

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### ABSTRACT

The goal of Diabetic RetinaScreen is to reduce the risk of sight loss among people with diabetes by the early detection and treatment of sight-threatening retinopathy.

This study aims to examine the uptake of annual diabetic retinopathy screening and study the five year trends in detection of screen-positive diabetic retinopathy and non-diabetes related eye disease in a cohort of annually screened diabetes patients.

A total of 171,557 were identified by the screening programme to be eligible for annual diabetic retinopathy screening. In all, 120,048 people in the Republic of Ireland over the age of 12 consented to and attended at least one retinopathy screening appointment between February 2013 and December 2018. Uptake of national retinopathy screening in Ireland and detection rate per 100,000 of any and screen-positive referable retinopathy through five rounds of annual screening was calculated.

Uptake of screening had reached 67.2% in the fifth round of screening. Detection rate of screen-positive retinopathy reduced from 13,229 to 4,237 per 100,000 screened over five rounds. Detection of proliferative disease had reduced from 2,898 to 713 per 100,000 screened. Non-diabetic eye disease detection and referral to treatment centres increased almost eight-fold from 393 in round 1 to 3,225 per 100,000 screened. The majority of individuals referred to treatment centres for ophthalmologist assessment are over the age of 50 years.

The screening programme has seen a reduced detection rate for both screen-positive and proliferative retinopathy referral in Ireland over five rounds of screening. Management of non-diabetic eye diseases poses a significant challenge in improving visual outcomes of people living with diabetes in Ireland.

### SOURCE

British Journal of Ophthalmology. Published Online First: 17 December 2020.  
<http://dx.doi.org/10.1136/bjophthalmol-2020-317508>



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## Building the Resiliency Capacity of Families

### INTRODUCTION

Supporting families and promoting their wellbeing through resiliency-based programmes and services is the impetus behind Tusla's Family Resource Centre Initiative. Within Kildare, the Curragh Family Resource Centre (FRC) provides services for adults, for families (parents and children) with welfare concerns, and for young people. The Centre has four major elements;-

- Community Services and Programmes
- Family Support
- Community Therapeutic Services
- Flourish (Mentored Youth Resiliency Programme)

The overarching objectives of the Centre are to;-

- Promote the healthy development of families and young people
- Develop effective therapeutic and preventative services and programmes with families and young people that are congruent with promising practices.

### OBJECTIVE

The research questions being addressed in this abstract are;-

- (1) How are the Curragh FRC programmes and services being perceived by clients?
- (2) Do clients report positive changes?

### METHODOLOGY

The various clients of the centre's services (i.e. adults, parents of children, and young people) consented to be contacted to provide feedback about the services they participated in with the centre. An independent evaluator sent a survey via SMS approximately two weeks after the participation in the centre's services had ended (between May 9 and May 28th, 2020).

### RESULTS

#### Community Services and Programmes

##### After-school:

Thirty six parents of children in after-school services were sent a survey via SMS. Fifteen clients responded to achieve a 58% completion rate.

- 100% were very satisfied with the therapeutic services
- 50% had made 'a lot of positive changes'

##### Music Group:

Seven parents of children in after-school services were sent a survey via SMS. One phone number was undeliverable, reducing the sample size to six. Three clients responded to achieve a 50% completion rate.

- 100% were very satisfied with the therapeutic services
- 66% had made 'a lot of positive changes'

##### Wobbler & Toddler:

Fifteen parents of children in the Wobbler and Toddler programme were sent a survey via SMS. Three phone numbers were undeliverable, reducing the sample size to 12. Four clients responded to achieve a 33% completion rate.

- 100% were very satisfied with the therapeutic services
- 50% had made 'a lot of positive changes'



### **Family Support**

Four adult clients were sent a survey via SMS. Three clients responded to achieve a 75% completion rate. The other clients received three reminder texts. The questions and results are listed below.

- 66% were very satisfied with the therapeutic services
- 66% had made 'a lot of positive changes'

Moreover, six parents of children in family support services were sent a survey via SMS and five responded.

- 100% were very satisfied with the therapeutic services
- 60% had made 'a lot of positive changes'

### **Community Therapeutic Services**

Thirty-four adult clients were sent a survey via SMS. Twenty-one responded to achieve a 62% completion rate.

- 88% were very satisfied with the therapeutic services
- 94% had made 'a lot of positive changes' and 'some positive changes'

Thirty-one parents of child clients were sent a survey via SMS. Eighteen responded to achieve a 58% response rate.

- 100% were very satisfied with the therapeutic services
- 80% had made 'a lot of positive changes'

### **Flourish Program**

The Flourish Program is a mentored youth resiliency programme that provides experiential learning opportunities to youth identified as being at risk of negative outcomes. Of the seven youth participants, five completed both a pre- and post-test. All five participants reported positive change in their overall resiliency score as measured on the validated Child and Youth Resilience measure (CYRM-R). Five of the seven caregivers completed the Resiliency measure for the "person most knowledgeable about the youth." All five caregivers report improvements in their child's resiliency. For instance, three of the five caregivers report an increase in the youth talking to them about how they feel.

### **CONCLUSION**

This report summarises the results of the evaluation efforts associated with the various services offered by the Curragh Family Resource Centre. The results of this independent evaluation indicate that the comprehensive services and programmes are extremely positive in terms of perceived client satisfaction and reported behavioural improvements.

### **REFERENCES**

References available upon request.



## Stress, Coping and Disposition in Undergraduate Psychology Students

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### INTRODUCTION

The assumptions of this study were underpinned by the Transactional Model of Stress. The aim of this study was to investigate the sources of stress in first year undergraduate psychology students and how they contribute to GHQ (likelihood of developing a stress-related illness), anxiety and happiness. The study also investigated the influence of dispositional traits on the perception of stressors and coping strategies. Unlike most research on stress in students, this study not only looked at the sources of distress but sources of eustress in students.

### METHODOLOGY

The method used to collect the data was a questionnaire completed by 71 psychology undergraduate students. The questionnaire asked students to rate a series of demands as either a hassle or as an uplift. The dispositional influences measured included, self-efficacy, optimism, personality traits and various coping strategies. The three outcome measures; GHQ, anxiety and happiness were also measured in the questionnaire. The statistical analysis was carried out on SPSS (statistical package for software analysis) using three hierarchical regression models.

### RESULTS

The regression model for GHQ indicated that the variables tested accounted for 70.6% of the variance in GHQ scores. Self-efficacy, (-0.298), neuroticism, (1.349), and avoidance coping, (0.299), caused the most variance in GHQ scores. The regression model for anxiety explained 58.3% of score variance. The results illustrated that avoidance coping, (0.386), sleep hygiene, (0.222) and family and friend support uplifts, (-0.184) accounted for most of the variance. Finally, the regression model for happiness explained 55.7% of variance in happiness scores in undergraduate psychology students with optimism, (0.148), self-efficacy, (0.108), and family and friend support hassles, (-0.059), accounting for the most variance.

### CONCLUSIONS

Avoidance coping was consistently found to be a significant predictor of all three outcome measures. Personality traits; extraversion and neuroticism were significant influencers on the outcome measures representing distress, GHQ and anxiety. Whereas optimism and self-efficacy were significant predictors of happiness. The key findings indicate that avoidance coping and family and friend support are the most influential coping strategies for students' wellbeing.

### PRESENTED

As a poster presentation at the Annual British Psychological Society Conference, Northern Ireland Branch in March 2018.



# Perceived Stigma and Empathy towards Depression and Substance Abuse - A Comparative Study Between Geography and Psychology University Students

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## INTRODUCTION

Ireland has one of the highest prevalence of mental health issues in Europe, of which substance abuse and depression are two significant contributors. Therefore, reducing barriers such as stigma with regard to mental health supports is key. In order to understand and reduce stigma, research has been conducted to assess influencing factors such as empathy. However, most studies focus on personal stigma towards mental illness rather than on perceived stigma.

## OBJECTIVE

This study aimed to explore the influence of empathy on the perceived stigma of both substance abuse and depression between two groups: psychology and geography students.

## METHODOLOGY

A total of 53 participants participated in the study, 68% of the sample ( $n=36$ ) were psychology students and 32% were geography students ( $n=17$ ), all of whom were students at Ulster University. Participants completed an online questionnaire via Qualtrics, an online survey platform. The questionnaire included demographic information such as gender, age, course and personal experience of substance abuse and/or depression. To measure stigma, participants completed the Perceived Stigma of Substance Abuse Scale, (PSAS) and The Depression Stigma Scale, (DSS). To measure empathy, the participants completed the Interpersonal Reactivity Index, (IRI). Data was analysed using SPSS in the form of two Multivariate Analyses, a MANOVA and MANCOVA and four independent t-tests.

## RESULTS

The results from the MANCOVA indicated there was not a statistically significant difference between the subject groups on the combined dependant variables; perceived stigma towards depression and perceived stigma towards substance abuse when controlling for empathy, ( $f(2, 45)=0.120$ ,  $p<0.887$ , Wilks'  $\Lambda=0.995$ , partial  $\eta^2=0.005$ ).

The results from the MANOVA indicated there was not a statistically significant difference between the subject groups on the combined dependant variables; perceived stigma towards depression and perceived stigma towards substance abuse without controlling for empathy, ( $f(2, 46)=0.129$ ,  $p<0.879$ , Wilks'  $\Lambda=0.994$ , partial  $\eta^2=0.006$ ). The combined results from the MANCOVA and MANOVA illustrate that empathy did not influence perceived stigma towards depression and substance abuse.

The results from the first independent t-test illustrated that there was not a statistically significant difference between geography and psychology students' empathy scores,  $t(51) = -0.04$ ,  $p<0.965$ .

In addition, there was no statistically significant difference between psychology students and geography students' perceived stigma towards depression,  $t(47) = -0.015$ ,  $p<0.988$ .

However, there was a statistically significant difference between psychology students and geography students' personal stigma towards depression scores,  $t(49) = -3.035$ ,  $p<0.004$ . Psychology students had a higher mean score of 30.22 ( $SD=3.70$ ) compared to geography students' mean score of 26.59 ( $SD=4.80$ ). Effect size=0.60.

Lastly, there was not a statistically significant difference between psychology students and geography students' perceived stigma towards substance abuse,  $t(50) = -0.38$ ,  $p<0.889$ .

## CONCLUSIONS

The study's main findings did not support the initial hypotheses; empathy influences perceived stigma; psychology students have less stigma towards depression and substance abuse and psychology students are more empathetic in comparison to geography students. The participants' scores on these variables were very similar, indicating the possible influence of their environment on their levels of perceived stigma and empathy levels. The finding of a significant difference between the groups' personal stigma towards depression indicated higher personal stigmas towards depression within the psychology group. A possible explanation offered was the influence of personal experience of depression on personal stigma as previous research has found positive correlations between personal stigma and personal experience of mental illness. As psychology students had higher levels of personal experience of depression (63%) in comparison to geography students, (41%), it was suggested that current symptomology and previous experience of depression resulted in the significant difference.





# Prevalence of Exercise Addiction in the Irish CrossFit Community

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## INTRODUCTION

Exercise addiction is the term used to describe individuals who engage in excessive and obsessive patterns of exercise that lead to physical and psychological distress. It is most commonly assessed based on criteria used for the diagnosis of substance abuse disorders.<sup>1,2</sup> The earliest research on exercise addiction was by Baekeland<sup>3</sup> who noticed the harmful effect of exercise deprivation on sleeping patterns in regular exercisers.

Higher levels of endogenous opioids are found following excessive exercise, indicating that a form of addiction to these hormones is responsible for excessive exercise in addicts. Exercise also stimulates the release of catecholamines, which results in over arousal of the sympathetic nervous system. The increased stimulation of dopaminergic brain structures by exercise is a likely cause of exercise addiction.<sup>4,5</sup> Furthermore, there is a significant correlation between frontal lobe asymmetry and exercise addiction.<sup>6</sup> Proper functioning of the frontal lobe is strongly implicated in addiction research, the frontal lobe area of the brain is responsible for control of behaviours and using past experiences to influence decision making.<sup>7</sup> Frontal lobe dysfunction appears to be a predictor for both drug addiction and behavioural addictions.<sup>8</sup>

## METHODOLOGY

The sample (n=265) ranged in age from 18 to 60. Participants completed the brief six question exercise addiction inventory (EAI) via surveymonkey.com. Exploratory factor analysis was performed to examine the underlying structure of the EAI. Chi-square goodness of fit analyses were performed to examine whether a CrossFit sample is representative of the general population.

## RESULTS

Factor analysis revealed one main component which accounted for 36% of the total variance. Each factor loaded adequately onto this. Cronbach’s alpha revealed an internal reliability of 0.635. Results displayed that 24.2% of CrossFit practitioners are symptomatic of exercise addiction. The highest risk group are males and females aged 18-24. Age displayed a significant negative linear correlation with total EAI score. Chi-square analyses revealed that results from CrossFit practitioners were not representative of the general population.

**Table 1 - Characteristics of Participants**

Characteristics	EAI Addiction	EAI Non-addiction	p-value
Gender (n = 265)			
Male	22% (n=27)	78% (n=96)	p=0.436
Female	26% (n=37)	74% (n=105)	
Age (n = 265)			
18-24	47% (n=15)	53% (n=17)	p=0.012
25-30	25% (n=21)	75% (n=63)	
31-36	24% (n=14)	76% (n=45)	
37-42	15% (n=8)	85% (n=47)	
43-60	17% (n=6)	83% (n=29)	

**Table 2 - Factor Analysis of Individual EAI Items**

Factor 1:	Exercise addiction	Factor-loading:
Salience	“Exercise is the most important thing in my life”	0.581
Conflict	“Conflicts have arisen between me and my family...”	0.401
Emotional regulation	“I use exercise as a way of changing my mood”	0.644
Tolerance	“Over time I have increased the amount of exercise I do...”	0.662
Withdrawal	“If I miss an exercise session, I feel moody and irritable”	0.675
Loss of control	“If I cut down the amount of exercise I do, and then...”	0.532



### CONCLUSIONS

CrossFit practitioners are significantly more likely to be symptomatic of exercise addiction than the general population. In line with previous research, the exercise addiction inventory (EAI) is adequately reliable and valid as a brief screening tool for exercise addiction. Exercise addiction can result in overtraining for athletes. Overtraining refers to an imbalance between training and recovery, which subsequently deteriorates performance.<sup>9</sup> In recreational exercisers, it can result in fatigue, mood disturbances, frequent respiratory infections and injury.<sup>10</sup> A recent study (n=449) identified an injury rate of 56.1% over a 12 month training period for CrossFit practitioners; 58.7% of these injuries were attributed to overtraining.<sup>11</sup>

This study has highlighted the prevalence of exercise addiction symptoms in the CrossFit community. There may be cause for concern, and an onus on CrossFit gym owners to be aware of the signs and potential impacts of exercise addiction.

### REFERENCES

Available on request.



# The Prevalence of Diagnosed and Suspected Disabilities among the Homeless Population - A Local Perspective of Cork City

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## INTRODUCTION

The number of single adults experiencing homelessness in Cork has seen an unprecedented increase of 74% from March 2016 to May 2020. The latest figures released by the Department of Housing, Planning and Local Government in May 2020 indicate that there are 371 single adults registered as experiencing homelessness in Cork, most of whom are believed to be in Cork City. There are a further 84 families experiencing homelessness in the South-West.<sup>1</sup> According to the 2016 Census, the proportion of people with a disability among the homeless population (27%) is double that of the general population (13.5%).<sup>2</sup>

## OBJECTIVE

This service evaluation aims to a) estimate the prevalence of diagnosed and suspected disabilities among the homeless population in Cork City and b) identify the demographics of these individuals and their pathways into homelessness.

## METHODOLOGY

Four homeless service providers across Cork City were invited to participate: Cork Simon Community, St. Vincent De Paul, Good Shepherd Cork and Cork Foyer. Data was collected by key workers in each service using a proforma. Key workers identified how many service users had diagnosed or suspected disabilities, the nature of their disabilities, how many received disability allowance, how long they had been accessing homeless services and what their current living arrangements were.

## RESULTS

Three hundred and fifty individuals were identified across 11 different sites: 220 males, 74 females, and 56 children. Of those whose age was known at the time of data collection, 18 to 25 year olds were least accounted for in the sample of people experiencing homelessness. 45+ year-olds accounted for the majority (47%) of the sample.

Two hundred and thirty individuals were identified as residing in emergency accommodation and 43 in high support housing. The living arrangements of 77 individuals were not specified. It is estimated that 145 (41%) individuals began accessing homeless services in the year before data collection. Addiction, mental health issues and relationship conflict were identified as the three most common pathways into homelessness. Other pathways identified included loss of previous accommodation, release from prison services, and lack of affordable housing.

One hundred and fifty five (44%) individuals were identified as having a disability diagnosis; 94 as having received a mental health-related diagnosis, 41 as having received a physical disability diagnosis and 16 as having received an intellectual disability diagnosis. A further 52 people (15%) were suspected of having a disability. These figures are markedly high as the 2016 Census estimated that 27% of the Irish homeless population had a disability. Despite 155 people having a disability diagnosis, only 92 people were in receipt of disability allowance.

## CONCLUSION

These findings support existing data indicating that the prevalence of disability is higher in the homeless population than in the general population.<sup>2</sup> Individuals experiencing homelessness who have a disability are likely to have different needs to those who do not have a disability and require specialised support. For instance, an individual with an intellectual disability may require intensive support from a key worker in applying for disability allowance. This may explain why less than 60% of service users included in this study who are identified as having a disability are in receipt of disability allowance. In order to provide appropriate supports to individuals who are experiencing homelessness and have a disability, there must be awareness particularly in disability and homeless services of a) the increased risk of homelessness among individuals with a disability and b) the high prevalence of disabilities among the homeless population.

## REFERENCES

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## PRESENTED

As an oral presentation at the Irish Street Medicine Symposium 2019 in Cork on September 27th, 2019 by Jim Lane and Lorraine O'Connor.



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## Improving Parental Satisfaction with Paediatric Anaesthesia in the Perioperative Period

### INTRODUCTION

Navigating family dynamics remains a central component of successful paediatric anaesthesia. Parents are an especially powerful ally in the management of sick children.<sup>1,3</sup> However, perioperative anaesthesia induces anxiety in both parents and children.<sup>4,5</sup> Therefore, managing the parents is equally as important. Education to tackle anxiety is well versed as a means to ultimately achieve satisfaction. The easiest and most readily available is verbal consultation. This has pros and cons especially with respect to information retention.<sup>6,8</sup> In response, supplementary information to reiterate and consolidate information received is the natural next step.<sup>9,10</sup> Equipping parents with knowledge is essential in ensuring parents can remain calm and it instils trust in healthcare.

### OBJECTIVE

To effectively improve parental satisfaction with paediatric anaesthesia using the implementation of written information.

### METHODOLOGY

This is a prospective single centre cohort study in Cork University Hospital (CUH). About 100 parents/guardians of children, aged 1 to 15 inclusive, undergoing day-case procedures requiring general anaesthesia were recruited via convenience sampling. They were randomised into either a control or an experimental group and asked to complete a modified validated 15 item Paediatric Anaesthesia Parent Satisfaction (PAPS) survey questionnaire before discharge.

Parents in the control group received the current standard of care in terms of education. For this, the anaesthetist overseeing the child's surgery would meet and perform a pre-anaesthetic assessment on the morning of surgery. They would explain the anaesthetic process and post-anaesthesia side effects to help parents prepare. Parents in the experimental group received an additional one page pamphlet reiterating the verbal information.

Data was analysed for overall satisfaction and satisfaction with Information, Procedure, Management and Interpersonal Relationships.

### RESULTS

The 74% response rate consisted of mostly a mother-father-dyad of children aged 6 years on average. Overall satisfaction was not significantly improved but the experimental group showed higher than average satisfaction with Information (23.76±2.15 vs. 23.46±2.82,  $p>0.05$ ) and Management (22.76±3.04 vs. 22.43±3.04,  $p>0.05$ ).

On average, parents rated the highest satisfaction level with how the anaesthetist cared for their child (4.96±0.20), in having questions answered by the anaesthetist pre-surgery (4.95±0.23) and in the staff's professionalism and respect toward their child (4.95±0.23).

In contrast, parents were least satisfied with the post-surgical period, specifically with management of their child's nausea and vomiting (3.51±2.26) and with regard to explanations to prepare for their child's physical and emotional state (4.22±1.26). However, none reached significance.

Both Information ( $r_s=0.69$ ,  $p<0.01$ ) and Management ( $r_s=0.79$ ,  $p<0.01$ ) showed significantly strong positive correlation with overall satisfaction which was mostly influenced by Management (62.41% effect size).

### CONCLUSIONS

In conclusion, supplemental written information has the potential to improve parental satisfaction with information and with perioperative management. The post-operative period is an avenue to further improve the current standard of care. Enhanced knowledge prepares parents for the perioperative period, ensuring effective education is dependent, not only on the format of delivery, but also on the timing and innate coping mechanisms of each parent.

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## An Exploratory Study of the Support Needs of Midwives in Relation to Perinatal Mental Health

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### INTRODUCTION

The National Maternity Strategy<sup>1</sup> and the National Specialist Perinatal Mental Health Service Model of Care for Ireland<sup>2</sup> recommend a central role for midwives in the provision of women-centred care for those with mental health difficulties in pregnancy. Maternity networks are required to provide a 'Hub and Spoke' perinatal mental health (PMH) service which is delivered by a multidisciplinary team. It has also been identified that PMH professionals will need to work collaboratively with midwives to develop their skills and confidence in this area.<sup>5</sup> The development and functioning of PMH teams will require education for midwives to ensure that women are appropriately referred to the service that will benefit them.

A robust review of the literature exploring the knowledge, attitudes, and practice of midwives and nurses working in Ireland about PMH<sup>3,4</sup> indicates that while the majority of midwives include mental health as an aspect of their overall assessment of women, they reported a lack confidence about discussing PMH issues with women.<sup>3,4</sup> A resolution to this situation is for PMH professionals to work collaboratively with midwives to develop their skills and confidence in this area.<sup>5</sup> However, most midwives working with pregnant women in Ireland do not have access to this collaborative network to gain knowledge about PMH. This research explores midwives' experiences and perceptions of meeting women with PMH issues in an antenatal clinic without having access to specialist perinatal mental health support.

### OBJECTIVES

This study aimed to;

- Explore midwives' support needs concerning perinatal mental health
- Facilitate dialogue and identify strategies to support midwives in caring for pregnant women with mental health needs

The findings of this study will be used to guide the development of a training programme for midwives working in antenatal clinics.

### METHODOLOGY

A qualitative descriptive design was used. Six midwives working in hospital and community antenatal clinics in the Republic of Ireland were interviewed. Data was collected over two months in 2020 using semi-structured interviews. Data were analysed using Braun and Clarke Framework (2006)<sup>6</sup> to identify themes and sub-themes. The reporting of this study was informed by COREQ criteria.<sup>7</sup>

### RESULTS

The majority of midwives cared for women who experienced perinatal mental health difficulties during their pregnancy. Midwives identified limited knowledge of mental illnesses outside of depression and anxiety. Midwives reported feeling unsure about discussing self-harm or complex mental health issues with women and described a lack of confidence in this area. Training and education about the detection and care for women with mental illness were identified as a key requirement to improve confidence around this issue. Midwifery-led care with an emphasis on continuity was identified as important in providing women-centred care to women presenting with mental health challenges in pregnancy.

### CONCLUSION

The following recommendations arose from this study:-

- Collaboration between Specialist PMH professionals and midwives working in antenatal clinics
- Midwives require knowledge about the full spectrum of PMH disorders
- Specific communication skills-based training for midwives is required to increase confidence and competence in risk assessment of those women presenting with complex PMH needs
- Midwives need information about the role of PMH specialists and appropriate and timely referral pathways to specialist mental health services
- Further research is required on the impact of midwifery-led care on improving outcomes for women with mental health needs in pregnancy

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## A Qualitative Exploration of Community Mental Health Nurses' Experiences of Caring for Women with Perinatal Mental Health Needs

### INTRODUCTION

Mental health problems in the perinatal period can have immediate and long-term consequences for the woman, child and wider family. In response to this, providing effective perinatal mental health (PNMH) care has become a major focus in both national and international healthcare delivery. Community mental health nurses (CMHNs) play an important role in the current and future provision of perinatal mental healthcare to women and their families. Whilst there is much research available exploring other professionals' views in caring for women with perinatal mental health problems, there is a dearth of evidence available in relation to the experiences of CMHNs.

### OBJECTIVE

The aim of the study was to explore the experiences of CMHNs in caring for women with perinatal mental health needs.

### METHODOLOGY

The study was carried out using a qualitative descriptive design. Seven CMHNs were interviewed using a semi-structured approach to gather in-depth descriptions of their experiences following receipt of informed consent. Data were analysed using a framework for thematic analysis.

### RESULTS

Three key themes were identified: Confidence in Caregiving, Barriers/Challenges in Providing PNMH Care and CMHNs' Interventions in Caring for Women with PNMH Needs. CMHNs reported confidence in managing the health needs of women with mental illness in pregnancy and postpartum. However, they lacked confidence in providing specialist PNMH interventions due to deficits in their PNMH knowledge and minimal exposure in practice. Lack of specialist services and deficits in interdisciplinary collaboration were identified as barriers to care provision. Concerns re cultural sensitivity and fears regarding the responsibility for the baby as well as the mother, were some of the challenges in PNMH care reported by participants. Establishing a therapeutic relationship, building supports and providing pre-conception advice were the key interventions provided to women with perinatal mental health issues by participants.

### CONCLUSION

The CMHN has an important role to play in the holistic care of women and their families requiring perinatal mental healthcare. To facilitate this, CMHNs would benefit from more PNMH specific education to enable them to provide more specialist care to women with mental health problems in pregnancy and in the postpartum period. Full implementation of the recommendations as described in the HSE (2017) document, Specialist Perinatal Mental Health Services Model of Care<sup>1</sup> is also advocated. In particular, the development of clear pathways of care and communication structures between the services would help to alleviate the barriers to PNMH care provision noted by the nurses in this study.

### REFERENCES

Available on request.



## The Diagnostic Yield of Chest Radiographs in a Rural General Practice Setting

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### INTRODUCTION

Chest radiography (CXR) is an important diagnostic method for evaluation of the airways, pulmonary parenchyma and vessels, mediastinum, heart, pleura and chest wall.<sup>1</sup> It is one of the most widely used diagnostic imaging techniques in Western societies; on average 236 CXRs per 1,000 patients per year are performed and this technique accounts for 25% of the annual total numbers of diagnostic imaging procedures.<sup>2</sup> For GPs working in a rural practice, where patients have a large distance to travel in order to obtain radiography, careful consideration is required regarding whether patients should get radiology or not.

### OBJECTIVE

The aim of this study was to assess the influence of CXR on patient management in a rural general practice.

### METHODOLOGY

Fifty GMS patients were randomly selected and their HealthOne records were retrospectively examined for change in patient management assessed by means of questionnaires filled in by GPs before and after CXR. The patients were all based in a single GP practice, Westbury Medical Centre, Athea, Co. Limerick.

### RESULTS

- Mean age of the patients was 65 and 53% were male.
- The main indications for the chest radiograph included; history of persistent cough (42%), persistent dyspnoea (20%), suspected pneumonia (20%) and suspected malignancy (13%). Hemoptysis (5%)
- Clinically relevant abnormalities were found in (16) 32% of the CXRs.
- Patient management changed in 18 (36%) of the patients following CXR.
- Main changes included: Referrals to a medical specialist 5 (11%)
- Change in therapy 16 (32%)
- Reassurance 23 (46%)
- No change 17 (34%)

### CONCLUSIONS

Patient management by the GP changed in 67% of patients following CXR. Thus, CXR is an important diagnostic tool for GPs and seems a cost-effective diagnostic test. It is important not to underestimate the usefulness of chest x-ray in a consultation and to refer patients early as it may help in their management.

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O'Donnell, A.,<sup>1</sup>  
 Fitzgerald, L.,<sup>1</sup>  
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## An Analysis of Digital Radiography Technique and Exposure Factors Employed when Imaging Neonates in a Neonatal Intensive Care Unit and Subsequent Optimisation as a Result

### INTRODUCTION

Neonates are highly sensitive to radiation and it is crucial that radiographers optimise technique to ensure the lowest dose possible is delivered to neonates while maintaining image quality. Following the introduction of a new digital radiography portable machine in the Neonatal Intensive Care Unit (NICU), it was seen as an opportunity to review and update local diagnostic reference levels (DRL) and educate staff accordingly.

### METHODOLOGY

A six month retrospective audit was performed in NICU in the University Maternity Hospital, Limerick. Exposure parameters, weight ranges, dose area product (DAP), whether the detector was placed directly under the patient or in the incubator tray and whether the incubator was open or closed were analysed. The median value of DAP readings was used to calculate the local DRL to standardise practice.

**Table 1 – Weight Ranges Used in the Department**

Weight Range	kVp	mAs
500g - 1,500g	70	0.5
1500g - 2,500g	70	0.7
2500g - 3,500g	70	1
3500g - 4,500g	70	1.6

### RESULTS

Local DRLs were compiled using the median values for various weight ranges. In addition, further observations were made. It was noted that the placement of the detector had negligible effect on dose. However, to maintain infection control it is preferred to place the detector in the incubator tray. There was also insignificant correlation between dose and whether the incubator was opened or closed. For the aforementioned reason, a closed incubator is desirable. Finally, it was observed that despite using the same exposure parameters, doses delivered varied between staff; one justification for this disparity was varied work backgrounds of radiography staff resulting in subsequent increased or decreased collimated fields of exposure.

### CONCLUSION

Having communicated the reviewed DRLs with staff, it is envisioned to increase uniformity of doses in the neonatal unit. The preferred local technique within NICU for infection control reasons is placement of the detector in the tray of a closed incubator. Variances of doses between staff highlight the requirement for education to standardise practice. A further study will involve re-auditing doses post-education to investigate if this variance has been diminished.

### REFERENCES

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## Lessons Learned from the Establishment of Virtual Dermatology Clinics

### INTRODUCTION

International Guidelines<sup>1</sup> recommend that face to face clinics (FTF) should be converted to tele-consultations where possible in the context of COVID-19. The rapid establishment of virtual clinics (VCs) has been hugely impactful with several barriers to implementation emerging. We highlighted the pitfalls of this new way of delivering care and quantified the additional burden on dermatology resources.

### OBJECTIVE

1. Quantify the additional workload generated by VCs
2. Highlight obstacles to the delivery of VCs
3. Restructure clinics to meet increased demands

### METHODOLOGY

We performed a quantitative study of 47 review patients attending VCs between July and August 2020. Each component of the consultation was timed, on a specifically designed proforma. Staffing resources required for VC were compared with the pre-COVID FTF requirement.

### RESULTS

Forty-seven patients with equal gender balance and a mean age of 51 were included.

Diagnoses comprised of 62% (n=29) inflammatory dermatoses and 38% (n=18) lesions.

The mean interval since last FTF was 30 (sd±11.4) weeks. For 51% (n=24) this was their first VC. Mean duration of each consultation was 21.5 (sd±9.5) minutes. Mean duration of pre-COVID FTF consultations was 14.4 minutes. This represents a 49% increase in VC time when compared to FTF. Factors contributing to prolonged consultation time included poor access to phones and inaccurate contact details.

Phone calls accounted for a mean of 8.4 minutes (40%) of the consultation time with a mean of 1.9 phone calls required per patient. Photographs were requested from 17% (n=8) of patients of which 50% (n=4) were clinically useful. Barriers cited to sending photos included patient access to smart phone, IT skills and difficult clinical site. Prescriptions were required by 34% (n=16) of patients which were then posted to them.

Nineteen (40.4%) consultations could not be completed on the day that they commenced. This was due to no response from patient in 36.8% (n=7), awaiting photograph in 31.5% (n=6) and pending labs in 5.3% (n=1).

If consultations had been in FTF format, 36% (n=17) of patients could potentially have been discharged. Reasons preventing patient discharge included; need for full skin examination, no clinical imaging and patient anxiety.

We calculated that the average number of virtual consultations per consultant was forty per week. When using a mean time of 21.5 minutes per patient this amounts to 860 minutes (14.3hrs) per week. This exceeded our previously allocated time of six hours per week.

### CONCLUSION

When developing a model of care that incorporates tele-dermatology, it is important to identify the resources required to deliver this service. It is clear from the above findings that VCs constitute an increased burden on resources when compared to FTF. As a result, we have increased the time dedicated to VCs by 100%. Clinics are being restructured to eliminate the barriers identified. This includes pre-VC text message alert, increased access to phones and improved clinical imaging systems. The results show that VCs may result in a delay in the discharge of patients which will further stretch dermatology waiting lists.

### REFERENCES

Available on request.

### Acknowledgement

The authors wish to acknowledge the contribution of Dr. Sinéad Field, Consultant Dermatologist, University Hospital Limerick to this research.



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## Flexing of Community Podiatry Foot Protection Team through the Implementation of a Rapid Access Podiatry Clinic in Order to Improve Emergency Department Avoidance and Patient Outcomes during COVID-19

### INTRODUCTION

In 2019, the Podiatry service in CHO 3 secured SláinteCare funding for a podiatry-led approach to the timely provision of aids and appliances to patients. Our project outcomes included reducing acute admissions and referrals. In 2020, as COVID-19 protocols were implemented throughout the country, our service and project was required to flex i.e. a Department of Health coined phrase to describe how a service changed and demonstrated flexibility in response to the new demands and constraints placed on it by the Covid-19 pandemic.

Existing protocols were interrupted which saw best practice for diabetic foot care shift. Often, patients were either unable or reluctant to attend the regional model 4 hospital for care. The same rang true for non-diabetic foot ulcer patients who were unable to access their regular outpatient vascular review for intensive management of their wounds.

In line with current research and our national model of foot care ('Model of Care for the Diabetic Foot') our service recognised the need for the development of a Rapid Access Podiatry Clinic (RAPC). With support from our colleagues locally and nationally, we were able to triage and manage patients within our Foot Protection Team (FPT) thus avoiding unnecessary Emergency Department (ED) presentations and reducing demand on a hospital system that required capacity in order to manage the unpredictable pandemic.

We worked in line with the principles of SláinteCare: "Right Care, Right Time, Right Place" to ensure that the patient was kept at the centre of our service throughout their journey.

### METHODOLOGY

A review of the data from the two community podiatry clinical locations over a three month period (March 18th to June 18th, 2020) was conducted. All patients who presented to the RAPC were reviewed.

Patients eligible for the RAPC were defined as those requesting the service due to the presentation of a foot ulcer, concern of a developing foot ulcer, significant pain in the foot, or those in the 'In Remission' phase having previously had a foot ulceration or another complication of diabetes e.g. Charcot Foot. Multiple ulcers on one patient were recorded as separate incidences. Data was collated and analysed in an excel sheet on encrypted HSE laptops.

### RESULTS

During this period, the clinics reviewed 184 patients for 213 episodes of foot concerns. There were a cumulative 109 episodes of ulceration, pre-breakdown or ingrown toenails that required intervention. A total of 79.5% of episodes fully resolved within this period with a further 7% having resolved by >50% within this timeframe.

A total of 81.3% of the eligible cohort were reviewed in the RAPC within 24 working hours. A further 13.9% were seen within 48 working hours. Care was delivered to patients via a total of 203 face to face visits and 193 follow-up review phone calls.

We recorded 53 ED Avoidances within this 13 week timeframe.

### CONCLUSIONS

COVID-19 has provided countless unforeseen challenges to our traditional healthcare structures and its service users. This study highlights the effectiveness of flexing a service in line with international research in order to maintain capacity within our acute hospital settings. The clinic allowed patients who may otherwise have failed to attend an acute setting (e.g. due to cocooning or anxiety around same) access to a service that would provide a high standard of care. It also limited unnecessary face to face clinical attendance through the use of tele-health review assessments. This study serves as a foundation for further research into the efficacy of community-based RAPC for foot concerns within vulnerable patient cohorts.

### FUNDING

Funding was received from the SláinteCare Integration Fund.

### Acknowledgement

We would like to thank the SláinteCare Integration Fund for its support during this period. Funding received has been vital for the flexing of our service to provide the right care, at the right time, in the right place.



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## Antimicrobial Stewardship Challenges and Innovative Initiatives in the Acute Hospital Setting during the COVID-19 Pandemic

### ABSTRACT

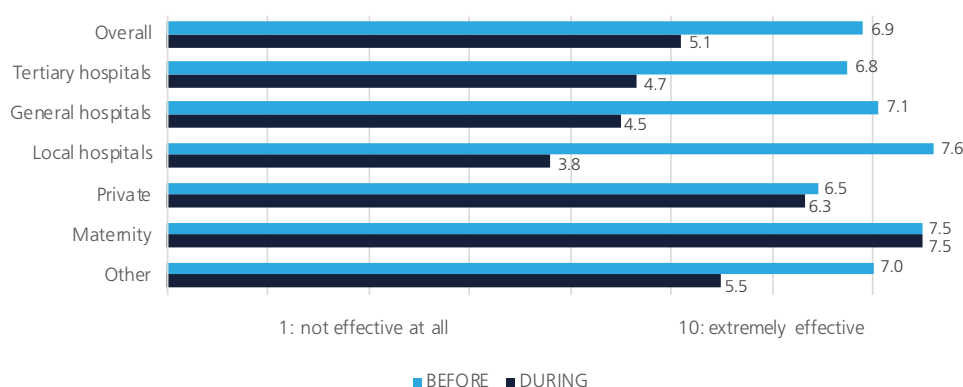
The global emergence of Coronavirus disease 2019 (COVID-19) in December 2019 has posed major challenges to all aspects of healthcare systems. One of the many challenges is the continuous and effective delivery of antimicrobial stewardship (AMS) in the acute care setting.

The objective of this study was to gain an insight into what challenges, if any, the COVID-19 pandemic posed to the effective delivery of antimicrobial stewardship (AMS) in the acute hospital setting and inform interventions to optimise delivery of AMS in the COVID-19 era.

Consultant microbiologists, infectious diseases physicians, antimicrobial stewardship and infectious disease pharmacists were invited to participate in a survey. SurveyMonkey® was used to host the survey and remained open for participation from May 20th to 25th, 2020. Data were collated and analysed on Microsoft Excel® 2019 and SPSS version 26.

Ninety-eight respondents participated in the survey. Responses were received from 67% of all acute hospitals in Ireland. Seventy-six per cent (65/86) of respondents reported COVID-19 had impacted on the implementation of AMS programmes locally. There was a statistically significant decrease in the median score for the effectiveness of AMS programmes which was 7 pre-COVID-19, compared to 5 during COVID-19 ( $z=6.584$ ,  $p<0.001$ ) (Figure 1).

**Figure 1 - Survey Respondents Rating of Effectiveness of AMS Before and During COVID-19 Pandemic (n=77)**



Changes in AMS practice were due to reduced face to face contact for meetings and education, reduced ward/health record access due to infection prevention and control (IPC) restrictions and staff shortages for COVID-19 related reasons (cocooning, infection, subdividing of workforce to teams, redeployment etc.). Twenty-eight per cent (21/75) of respondents reported introducing AMS interventions that proved particularly effective during the acute phase of COVID-19. Over half of the respondents introduced AMS interventions focused on their COVID-19 patient cohort which included introduction of antiviral treatment guidelines, use of biomarkers such as procalcitonin and use of electronic resources to promote AMS and facilitate education and communication between teams. The majority of respondents involved in the management of COVID-19 patients (43/49, 88%) utilised the HSE guidance for the use of antiviral therapy in COVID-19.

Successful delivery of AMS now and into the future requires further resourcing to mitigate the impact of COVID-19. It is imperative to further develop and utilise electronic resources such as electronic prescribing and electronic healthcare records to deliver AMS in the pandemic era and beyond. Further research into the use of procalcitonin and other biomarkers in the COVID-19 patient cohort to provide diagnostic stewardship is required as these may be useful tools to decrease inappropriate prescribing and support early de-escalation of antimicrobial therapy. Healthcare professionals involved in AMS in the acute hospital setting in Ireland recognise the importance of national guidance on treatment of infections.

This survey contributes to an evolving literature on the impact of COVID-19 on AMS and interventions to sustain AMS during this time.

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**PRESENTED**

At the Antibicrobial Stewardship (AMS) InSight Annual Seminar (online) on June 8th, 2020 by Marie Philbin.

**SOURCE**

Journal of Antimicrobial Chemotherapy, dkaa400, <https://doi.org/10.1093/jac/dkaa400>

Article (free access):

<https://academic.oup.com/jac/advance-article/doi/10.1093/jac/dkaa400/5917783?guestAccessKey=cc1ed4f2-dafc-42b9-ab71-8e9c2dc9600c>

**Acknowledgement**

We thank Professor Martin Cormican, Antimicrobial Resistance and Infection Control Division of HPSC, 25-27 Middle Gardiner Street, Dublin 1, Ireland and Department of Clinical Microbiology, Galway University Hospital, Newcastle Road, Galway, Ireland for his review of the paper prior to submission.

We thank all members of the AMS InSight team for their contribution to the development and review of the survey design: Elmarie Cottrell, Pharmacy Department, Cork University Maternity Hospital, Wilton, Cork, Ireland; Dr Robert Cunney, Department of Clinical Microbiology, Temple Street Children's Hospital, Temple Street, Dublin, Ireland; Mary Kelly, Pharmacy Department, St James's Hospital, James's Street, Dublin 8, Ireland; and Dr Geraldine Maloney, Department of Infectious Diseases, Cork University Hospital, Wilton, Cork, Ireland.

We thank Mala Shah (Pharmacy Department, Cork University Hospital, Wilton, Cork, Ireland), Rebecca Breslin (Pharmacy Department, Galway University Hospital, Newcastle Road, Galway, Ireland) for their contribution to the development of the survey design.

We thank the Irish Society of Clinical Microbiologists, the Infectious Diseases Society of Ireland and the Irish Antimicrobial Pharmacists' Group for dissemination of the survey and participation of members in the survey.

We thank all survey respondents.



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## Impact of Extending Pharmacy Services to the Point of Discharge in the Irish Setting and Acceptability to Healthcare Staff

### ABSTRACT

The aim of this study was to determine the impact of a clinical pharmacist on medication safety at the point of discharge and its acceptability to medical staff.

Medication errors were reviewed before and after the introduction of a pharmacist-led discharge service. An evaluation was undertaken by means of a questionnaire to community pharmacists, GPs and hospital clinicians.

A total of 62 patients were included in the study. A total of 22 and 18 errors were detected on the doctor written prescriptions and discharge summaries, respectively. Of these, 61.5% were judged to have the potential to cause moderate patient harm and 38.5% minor/no harm. Omissions were the most frequently occurring errors. The pharmacist-led discharge service significantly reduced errors from 50% (n=17) to 7% (n=2) of patients ( $p<0.001$ ) and 10% (n=22) to 1% (n=2) of medication orders ( $p=0.001$ ).

Thirteen community pharmacists, 11 GPs and 5 hospital clinicians completed the evaluation and 70% or more in each group found the service useful. All were of the view that it had the potential to reduce the risk of medication errors and all felt it improved communication between secondary and primary care. The majority, 85% or more, in each group considered that the additional information on medication changes and allergies/adverse reactions should accompany all discharge prescriptions.

Pharmacist involvement at the point of discharge had a significant impact on medication safety. Crucially, in this project, we show the service was received well by medical personnel and improved communication between primary and secondary care, enhancing implementation potential.

### SOURCE

Irish Medical Journal.114(1):235.

Available online at <http://imj.ie/extending-pharmacy-services-to-the-point-of-discharge/>



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## Transitioning to Survivorship - Evaluating the Effectiveness of 'Cancer-Thriving and Surviving', a Self-Management Intervention for Patients during the Post-Treatment Period

### INTRODUCTION

More individuals diagnosed with cancer are living longer due to substantial improvements in detection and treatment. This dramatic growth will have significant implications for both the healthcare system and cancer support services. Improving survival rates have challenged the previous linear trajectory of the disease and have also been accompanied by a shift in language from 'cancer victims' to 'cancer survivors'.<sup>1-3</sup>

Alongside a rise in numbers, is a growing recognition of the psychosocial, physiological and economic implications of the post-treatment period.<sup>4</sup> Cancer is increasingly conceptualised as a chronic illness,<sup>5</sup> with many experiencing consequences of both the diagnosis and its treatments. It is acknowledged that early intervention in survivorship may improve outcomes, alleviate problems, and reduce long-term healthcare utilisation.<sup>6</sup>

However, care and support post-treatment are often fragmented and under-resourced in Ireland. The National Cancer Strategy 2017-2026 has endorsed supported self-management as a means to improve quality of life and increase longevity in survivorship.<sup>7</sup> Self-management, as it relates to cancer patients in the post-treatment period, has been defined as "awareness and active participation by the person in their recovery, recuperation and rehabilitation, to minimise the consequences of treatment, and promote survival, health and well-being."<sup>6</sup>

Although self-management is a well-established element of chronic disease care, comparatively little research has been conducted into its utility, application and potential impact in the realm of cancer.<sup>8-10</sup> Nevertheless, preliminary evidence suggests that cancer survivors may benefit greatly from self-management techniques<sup>4</sup> especially since the period after active treatment may be the most conducive to lifestyle changes.<sup>11</sup>

### OBJECTIVE

The aim of this research was to establish the utility of a Cancer Specific Post-Treatment Self-Management Programme in a group of Irish patients.

### METHODOLOGY

The 'Cancer-Thriving and Surviving Programme' (CTS), an adapted version of the Chronic Disease Self-Management Programme (CDSMP), is a standardised cancer-specific intervention that provides self-management techniques to enhance health, well-being and coping strategies. The present study evaluated the effect of the CTS programme on self-efficacy as well as health-related behaviours and beliefs in a cohort of cancer survivors in the post-treatment period. A quasi-experimental design (n=47) evaluated the effectiveness of the intervention with a convenience sample of Irish patients in the post-treatment phase. Self-report data was collected at baseline, immediately post-programme and at six weeks after enrolment across four sites (two community and two hospital settings).

### RESULTS

CTS participants indicated statistically significant improvements in self-efficacy, quality of life, energy levels, and a significant decrease in mean depression levels following the CTS intervention across three-time points. Post-programme differences were also found, indicating decreased pain, fatigue and distress among the participants, as well as, a net positive change in total activity level and self-rated health status.

### CONCLUSIONS

The results support the effectiveness of the CTS Programme, an adapted version of the CDSMP Programme, for cancer survivors in the post-treatment period. Moreover, self-management support could potentially address gaps in service provision and improve health-related outcomes in this growing segment of the population.



## **Acknowledgements**

Initial training was funded by the Irish Cancer Society (Deirdre Murphy) and Beaumont Hospital. A special thanks to the facilitators, the Master Trainers, and staff at the various sites, particularly Deirdre Grant, Patricia Pugh and Linda Houlihan of ARC Cancer Support Services. Finally, we wish to extend our sincere gratitude to the patient volunteers and participants for their time and effort. This research is only possible thanks to their generosity.

## **REFERENCES**

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## **PRESENTED**

As an oral presentation at the Psychological Society of Ireland Conference in Galway on November 8th, 2018 by Dr. Vicky Lunt.



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## A Cost Analysis of a Community-Based Support Centre for Cancer Patients and their Families - The EVeCANs Study

### ABSTRACT

Getting a cancer diagnosis is a frightening experience and cancer patients and their families require supports alongside front line treatment. Such services are often provided by community-based cancer support services, providing a range of services from diagnosis into survivorship.

There are approximately 40 cancer support centres or groups nationally in Ireland. The East Galway & Midlands (EG&M) Cancer Support is one such service. Established by Jacqueline and Michael Daly in 2009, it is based in Ballinasloe, Co. Galway. The centre is a voluntary organisation offering practical, psychological and emotional support as well as a number of complementary therapies to those with a cancer diagnosis, and their families. These services aim to improve the quality of life of patients and their families holistically, during cancer treatment and beyond into survivorship. This study presents the results of a cost analysis which estimates the resource impact of a community-based support intervention for cancer patients and survivors provided through the EG&M Cancer Support.

In order to inform the cost analysis data were collected from EG&M Cancer Support over a seven month period (between September 2018 and March 2019). Ethical approval for this study was obtained from the Clinical Research Ethics Committee in Cork. The study population includes all patients and family members who used the service during this time. Anonymised patient data collected included, age, sex, cancer site, and diagnosis. All services provided by the centre during the seven month period were included in this study. Data on service utilisation collected from EG&M records included: services used, frequency of use, duration of each service, and the qualifications of the personnel responsible for service provision. This data informed the micro-costing analysis, which adopted the perspective of the Irish health service and only considered direct costs, in line with the national Health Information Quality Authority guidelines, to determine the budget impact of providing the service at a national level. To value health resource used for each service, the market hourly wage for each professional was estimated and applied. Hourly wages were estimated using national guidelines and official pay scales published by the Health Service Executive. A probabilistic sensitivity analysis was employed to address uncertainty around the input parameters, and scenario analyses were used to determine the financial impact of increased user uptake. The observation study revealed approximately 8% of cancer incidences in the geographical area from which the clients hail and we project the costs of providing the service to 10%, 15% and 20% of this population from the health service perspective using scenario analyses.

Over a seven-month period 238 clients were seen at the centre. The average age was 58 years. The most frequently used services were bus services to hospital appointments (20%), counselling (9%) and complementary treatments; healing touch therapy (18%), Reiki (16%) and bio-energy therapy (14%). The estimated total annual cost to provide all services was €270,962. The average annual cost per person is €1,138.

Scenario analyses revealed the total annual costs of providing the service would increase to €429,043, but cost per person would decrease to €915 if uptake increased from current 8% to 10% of cancer patients in the seven surrounding counties. Increasing uptake to 20%, would increase total costs further, to €718,298, and reduce cost per person to €766.

Given estimates that by 2020 one in two people will get cancer in their lifetime, the demand for community-based services complementing and supporting hospital care is expected to increase. Appropriate funding is required for sustainability. This analysis, which estimates the costs of one community-based support centre for cancer patients and survivors, can inform future policy decisions for integrated cancer support, including funding for community-based supports.

### PRESENTED

As a poster presentation at the:-

- International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Conference in Copenhagen on November 4th, 2019.
- Irish Association for Cancer Research (IARC) 56th Annual Conference in Galway on February 27th, 2020.

### FUNDING

This study has received funding from Breakthrough Cancer Research.

### SOURCE

Support Care Cancer (2020). <https://doi.org/10.1007/s00520-020-05508-8>





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## Providing Effective Palliative Care Education to Primary Care Occupational Therapists and Physiotherapists - Project ECHO AIIHPC

### ABSTRACT

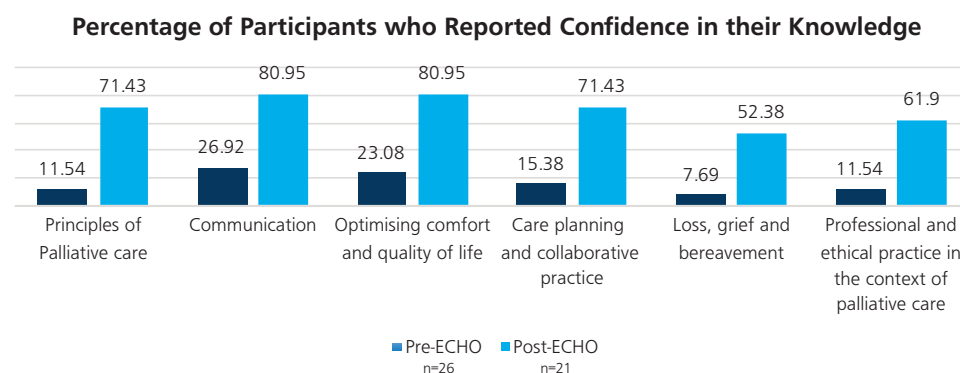
Project ECHO (Extension for Community Healthcare Outcomes) uses teleconferencing technology to support and train healthcare professionals (HCPs) remotely. A palliative care ECHO programme was developed and implemented for primary care occupational therapists and physiotherapists to explore its utility in providing education and support to enhance palliative care provision by primary care therapists.

Project ECHO AIIHPC (All-Ireland Institute of Hospice and Palliative Care) aimed to improve access to palliative care for those in the community by offering easily accessible and up-to-date training on principles of palliative care and best practices to occupational therapists and physiotherapists who deliver primary care in communities throughout Ireland

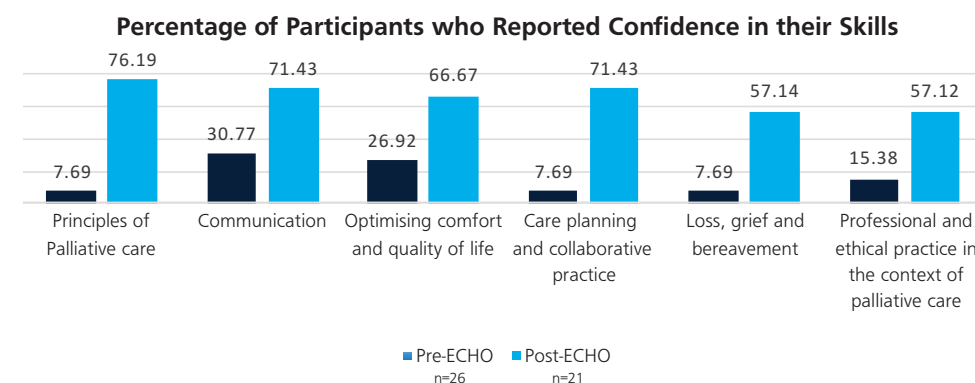
A mixed methods study was used to evaluate the project. ECHO participants completed pre- and post-programme questionnaires regarding their knowledge and skills across key palliative care domains. They also evaluated session topics and identified if and how they intended to change their practice. Focus groups were held with participants of the ECHO programme before programme commencement to explore attitudes and experiences of palliative care and after programme conclusion to explore the experiences of the ECHO programme.

Twenty six primary care HCPs commenced the ECHO programme. This involved participation in fortnightly ECHO sessions using video conferencing technology. Teaching and case-based discussions were facilitated by specialist palliative care staff. Self-rated confidence in palliative care knowledge and skills improved significantly ( $p < 0.002$ ) following the ECHO programme (See Figure 1(a) and 1(b)).

**Figure 1(a) - Self-Rated Confidence in Knowledge for Each Domain of Competence from the HSE Palliative Care Competence Framework**



**Figure 1(b) - Self-Rated Confidence in Skills for Each Domain of Competence from the HSE Palliative Care Competence Framework**





Ninety five per cent (n=19) of participants reported ECHO met their learning needs and 85% of participants (n=17) would recommend ECHO to their colleagues. Ninety five per cent of participants (n=19) reported that ECHO was an effective format to enhance clinical knowledge and 75% (n=16) reported that it was an effective format to enhance clinical skills.

This study supports the use of Project ECHO for primary care therapists in Ireland to improve palliative care knowledge and skills. Current challenges have raised greater interest and appreciation for using technology to enable remote access to education and professional meetings.

This study expands on prior research which demonstrates the utility of Project ECHO and its effectiveness in improving access to care and allowing dissemination of best practices within existing resources. As a low-cost high-impact model, ECHO provides an affordable solution to addressing growing need for integrated palliative care services.

#### **PRESENTED**

As an oral presentation by Ruth Usher at the Project ECHO AIHPC Workshop which took place online on August 11th, 2020.

#### **FUNDING**

The HSE provided funding, in partnership with the National Clinical Programme for Palliative Care, for the delivery and evaluation of this project.

#### **SOURCE**

Health and Social Care in the Community. 2021;00:1–11. [doi.org/10.1111/hsc.13372](https://doi.org/10.1111/hsc.13372) (Open Access Publication)

#### **Acknowledgement**

The authors wish to express their sincere thanks to other members of the Project ECHO team, Bernadette Pirihi, Mick Bannon and Karen Charnley.

## Post-Hospital Syndrome - A Concept Analysis

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### INTRODUCTION

For most, admission to hospital is a stressful time. Some of this stress is undoubtedly caused by the admitting illness as well as the worries that come with an acute change in health status. However, a major cause of such stress is the experience of hospitalisation itself. This is particularly so for older adults with dementia. Physical and mental stress during hospitalisation may increase vulnerability to adverse events after discharge and result in subsequent hospitalisation, a phenomenon known as 'post-hospital syndrome.' Despite the increasing use of the term 'post-hospital syndrome' in healthcare literature, the concept remains largely undefined and its relevance to the person with dementia unknown.

### OBJECTIVE

The aim of this study was to establish conceptual clarity with respect to the term 'post-hospital syndrome' through illumination of the use of the term in literature and its meaning in various healthcare contexts. With respect to these findings, a secondary aim of this study was to explore the role of physiotherapy as both a preventative and curative intervention for post-hospital syndrome.

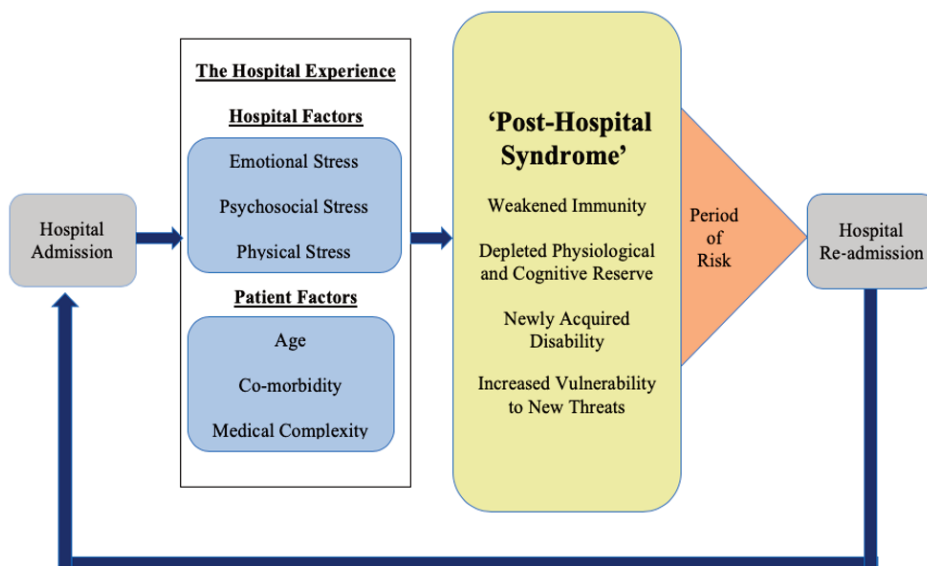
### METHODOLOGY

Rodgers'<sup>1</sup> evolutionary framework was utilised throughout the completion of this analysis. A systematic search was conducted of the Pubmed, EBSCO Medline, CINAHL and Scopus databases (1980-2020, English) using the search terms 'Post-Hospital Syndrome,' 'Post-Hospitalisation Syndrome' and 'Post-Hospitalization Syndrome.' A credible sample consisting of 30 peer-reviewed studies was formed and the resultant data was analysed thematically.

### RESULTS

Identification of the concept's antecedents, attributes and consequences led to the development of a conceptual definition and model. The antecedents of post-hospital syndrome include emotional and psychosocial stress, physical stress, age and medical complexity. The key attributes associated with post-hospital syndrome are related to the phenomenon's nosocomial and transient nature, as well as physiological vulnerability after discharge. The consequences of post-hospital syndrome can be described in terms of both care outcomes and health resource utilisation. Based on these findings, it would appear that post-hospital syndrome may be more usefully conceptualised as: "A transient phenomenon which is preceded by hospital-related stress and manifests as a period of compromised immunity and heightened vulnerability after discharge." The conceptual model outlines how the aforementioned hospital and patient factors contribute to a period of risk after discharge. This period of risk is characterised by weakened immunity, depleted physiological and cognitive reserve and newly acquired disability. This heightened state of vulnerability results in poorer care outcomes and increased utilisation of healthcare resources after discharge.

Figure 1 - Conceptual Model for Post-Hospital Syndrome



**CONCLUSION**

Evolutionary concept analysis employs a systematic approach to the investigation of a poorly defined concept in healthcare literature. Through the completion of this study, a level of conceptual clarity has been gained with respect to post-hospital syndrome. Individuals with dementia may be particularly vulnerable to the negative effects of hospitalisation and hence, post-hospital syndrome as a result. Considering the antecedents, attributes and consequences of post-hospital syndrome, quality physiotherapy intervention along the continuum of care may be key to mitigating the impact of post-hospital syndrome for adults with dementia. The conceptual clarity achieved as a result of this study should serve to assist future research in the area. Referring to post-hospital syndrome as either a clinical entity or timeline of vulnerability is likely to heavily influence its future conceptualisation and hence, due diligence should be observed. Further research which explores the phenomenon of post-hospital syndrome in the context of dementia, and specifically, seeks to identify the specific contributory factors, may assist in the shaping of services which support ageing being put in place.

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## Delivering Quality Care - Impact of a Dementia/Delirium Care Bundle on Care Practices and Outcomes

### INTRODUCTION

One in four admissions to acute care hospitals are adults living with dementia and one in five admissions will experience delirium. The Irish National Audit of Dementia Care (2020) in acute hospitals found that adults with dementia/delirium had significantly poorer outcomes. With the prevalence of dementia continuing to rise, the quality of care provision in acute care requires careful consideration. Evidence-based care bundles have been shown to improve care outcomes in a number of healthcare areas. Hence, a multidisciplinary research group was established to develop an integrated care pathway for adults with dementia/delirium accessing acute services. Central to this was the development of an inpatient dementia/delirium care bundle (DDCB). This DDCB was successfully piloted on a medicine for older persons ward before being rolled out to a general medical ward. Education and point of care support for staff was central to implementation and helped to drive cultural change towards a more person-centred approach to care.

### METHODOLOGY

Pre-implementation and post-implementation audits were conducted to ascertain effectiveness of the DDCB on a general medical ward. This included 20 patients identified as cognitively vulnerable and 20 who had the DDCB initiated. An evidenced-based audit proforma was developed to evaluate (1) Care practices: knowing the person, individualised communication, adequate nutrition and hydration and promoting a safe and orientating environment. (2) Care outcomes including delirium prevention/identification/management, decreasing the risk of, and harm from falls, improving nutritional profile and reducing length of stay. The audit tool was piloted to ascertain validity and reliability. Audits took place over a six month period in 2019. Audits consisted of document check, interview and observation. Statistical analysis was used to scrutinise the audit data. Action plans were subsequently developed to inform next stages of implementation.

### RESULTS

#### Care Practices:

The use of individualised communication documents rose from 5% to 61%. Monitoring of nutrition and hydration remained high and knowledge of nutritional preferences rose from 40% to 50%. Personalised environments rose from 30% to 81%. There was also evidence of increased knowledge about mobilisation needs and pain assessment.

#### Care Outcomes:

Delirium recognition improved from 76.5% to 92%, median length of stay decreased from 104 days to 29 days, need for 1:1 care decreased from 94.1% to 31.6%. Falls during admission reduced from 23.5% to 10.5% and fluid and food monitoring increased from 70.6% to 94.7%. Pre-implementation, the average weight loss during admission was 2.65kgs compared to 0.5kgs post-implementation.

### CONCLUSION

By emphasising an individualised and person-centred approach to care, this multidisciplinary DDCB has resulted in improved care outcomes and enhanced care practices for the person with dementia/delirium during hospital admission. Interestingly, the introduction of the DDCB has also been a building block for a number of other quality initiatives to enhance the care outcomes for people with dementia/delirium in acute care. The learning has been shared throughout other acute and community services and serves as a model of best practice. It also provides a platform for integration of National algorithms for dementia/delirium and nursing delirium metrics. The sustainability of the DDCB as well as its wider impact is identified as an area for further research.

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### FUNDING

The development of the DDCB was part of a larger Genio-funded project to develop an Integrated Dementia Pathway for Acute Care.



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## An Exploration of Nurses' Knowledge, Attitudes and Intentions Regarding Restraint Use in Irish Gerontological Hospitals

### INTRODUCTION

The use of restraint remains one of the most poorly understood aspects of care in gerontological nursing.<sup>1</sup> From an Irish perspective, guideline documents have been published at national level, advocating restraint minimisation.<sup>2,3</sup> As healthcare regulators, HIQA<sup>4</sup> have made restraint the central focus of their annual thematic inspections. Despite this scrutiny, no published Irish studies regarding restraint in nursing currently exist.

### OBJECTIVE

The primary aim of this study is to explore nurses' knowledge levels, attitudes and intention regarding physical restraint use in gerontological hospitals in Ireland. The secondary aim is to investigate the relationship between the variables; level of education, years of experience, and nurses' intentions to use restraint. This research investigates:-

- The relationship between knowledge and attitudes towards restraint (H1)
- The relationship between knowledge, attitudes and intentions towards restraint (H2)
- The relationship between level of education and intentions (H3)
- The relationship between years of experience and intentions regarding restraint use (H4)

### METHODOLOGY

This study uses a correlational, cross-sectional, between and within-subjects research design, using descriptive data obtained via a survey to test hypotheses. This purposive sample included nurses working in two Irish gerontological hospitals (n=83), within the Health Service Executive CHO5 region. This survey was adapted for an Irish nursing population, using measures previously validated by Janelli, Stamps and Delles<sup>5</sup> and Werner and Mendelsson.<sup>6</sup> This sample comprised 77 females (93.9%) and 5 males (6.1%), with a mean age category of 40-49 years of age.

### RESULTS

H1- A Pearson correlation coefficient found a strong positive significant association between nurses' knowledge (M=11.99, SD=2.58) and attitude (M=45.05, SD=4.97) ( $r(79)=0.55$ ,  $p<0.001$ ) regarding restraint use in Irish gerontological hospitals. This result accounts for 31% of the variation of scores.

H2 - Multiple regression indicates that knowledge and attitude explain 20% of the variance in intention scores ( $R^2=0.20$ ,  $F(2,78)=11.16$ ,  $p<0.001$ ). Knowledge negatively predicted intentions regarding restraint use in Irish gerontological hospitals ( $\beta=-0.17$ ,  $p=0.151$ , 95% CI= -0.44-0.07), as did attitude ( $\beta=-0.35$ ,  $p=0.004$ , 95% CI= -0.32 - -0.06).

H3 - Spearman's rank-order correlation ( $\rho$ ) found a weak, negative, non-significant correlation between level of education and intentions regarding restraint use, ( $r_s(81)=-0.11$ ,  $p=0.336$ ).

H4 - Spearman's rank-order correlation ( $\rho$ ) found a weak, negative, non-significant correlation between nurses' years of experience and intentions regarding restraint use, ( $r_s(81)=-0.14$ ,  $p=0.220$ ).

### CONCLUSIONS

As this is a foundational study within the domain of physical restraint in Irish gerontological hospitals, the following findings shed crucial insight into current nursing practice. It has been demonstrated that nurses' knowledge levels and attitudes towards restraint are intercorrelated (H1). Higher scores of both knowledge and attitudes predicted lower scores of intentions regarding restraint use amongst nurses, with attitude the strongest predictor (H2). This study also found a statistically non-significant relationship between level of education, years of experience and nurses' intentions regarding restraint use (H3 and H4). Currently, nurses undergo no formal assessment pre- or post-restraint training. This research instrument offers a viable metric for conducting future assessments of nurses' knowledge, attitude and intentions towards restraint use in practice. Future research would benefit from a mixed-methods study incorporating survey collection via this adapted research instrument, and focus-group interviews, to explore subjective norms and the role of organisational culture.

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Available on request.

### PRESENTED

As an oral presentation at the Psychological Society of Ireland's Early Graduate Conference (online) on September 12th, 2020 by Liam Redmond.



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## Interventions to Reduce Work-Related Musculoskeletal Disorders Among Healthcare Staff in Nursing Homes - An Integrative Literature Review

### ABSTRACT

Work-related musculoskeletal disorders (WMSDs) have been consistently high in nursing sectors. It is more common among healthcare workers in nursing homes than in other healthcare settings. This is related to the high dependency needs of older persons which can include self-care, mobility and total nursing care. In providing care, staff are exposed to potential injury associated with moving and handling patients. WMSDs significantly impact on quality of life of individuals, cause shortage of staff through absenteeism, thereby impacting on service provision and expose individuals, organisations and the society to economic hardship.

The aim of this review was to identify, review and critique relevant research and analyse and discuss interventions that may be effective in reducing the prevalence and consequences of WMSDs in nursing homes.

This study was a systematic literature review. A search of four databases, Embase, Science direct, Web of science and EBSCO Host was conducted. The reference list of relevant studies was searched to ensure all relevant studies were retrieved. Peer reviewed studies published between 1999 and 2019 were selected. The quality of these studies were appraised with Crowe Quality Appraisal Tool and reported using the PRISMA guidelines.

Fifteen studies met the criteria for inclusion in the review. Interventions reported were implemented in the form of single, double and multiple approaches. The components of the interventions were categorised using Burnard (2011) framework for content analysis into four categories;

1. Specialised equipment
2. Staff training
3. Policies and procedures to reduce WMSDs
4. Support and follow-up

Implications for practice: These findings have the potential to inform the availability and adherence to injury prevention policies and regulations by healthcare managers and staff which could influence practice and reduce work-related injury.

The following points were highlighted:

- A ceiling lift is the intervention of choice to reduce WMSDs in nursing homes, as it reduces the stress associated with pushing and pulling and limits subsequent injuries to staff.
- Risk assessment is vital to determine the individual needs of nursing homes and their residents and this risk assessment will guide managers and healthcare staff on appropriate interventions.
- Educational programmes aimed at reducing WMSDs should encourage staff participation and incorporate staff experiences to facilitate learning and positive outcomes and should be provided to all new employees and updates provided on an ongoing basis.
- Train the trainer roles could be used to implement the training interventions where staffing resources limit the employment of a Clinical Nurse Specialist (CNS) or a designated lead to facilitate safe handling of patients/clients.
- It is recommended to consider the implementation of a multifaceted approach incorporating evidence-based interventions.
- Further research is required to ascertain the effectiveness of Cognitive Behavioural Therapy (CBT) on injury reduction in nursing homes.

The findings of this review could positively influence practice, specifically within nursing homes and in any healthcare facility where staff are exposed to potential injury associated with moving and handling patients. Identifying the most appropriate interventions to reduce or prevent WMSDs is significant for the wellbeing of all staff, has economic implications also in terms of reduced WMSD absenteeism but ultimately will positively impact on the care of mobility-impaired clients.

### PRESENTED

As a Masters Dissertation to the Department of Nursing and Midwifery, University of Limerick on April 30th, 2020 by Enobong Asuquo.

### SOURCE

International Journal of Nursing Studies Advances. (2021) [doi.org/10.1016/j.ijnsa.2021.100033](https://doi.org/10.1016/j.ijnsa.2021.100033)



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# An Examination of Meals, Mealtimes and Nutrition in Health, Information and Quality Authority Residential Care Home Reports

## INTRODUCTION

The Health, Information and Quality Authority (HIQA) in Ireland is an independent regulatory authority that exists to improve health and social care in Ireland and is legally responsible for the registration, inspection, monitoring and review of all residential care centres including public, private and voluntary nursing homes.<sup>1</sup> HIQA reports have a national perspective on care in residential homes and this research attempts to explore issues around meals, mealtimes and nutrition through examination of published reports. Prevalence of malnutrition among the older population is high<sup>2</sup> and particularly in residents of nursing homes.<sup>3</sup> In the document 'The National Quality Standards for Residential Care Settings for Older People in Ireland,'<sup>4</sup> specifically Standard 2.2, standards and criteria relating to meals and mealtimes are outlined.

## OBJECTIVE

The aim of this study is to determine if issues relating to meals, mealtimes and nutrition are commented on in HIQA residential care home reports and to identify how they are commented on.

## METHODOLOGY

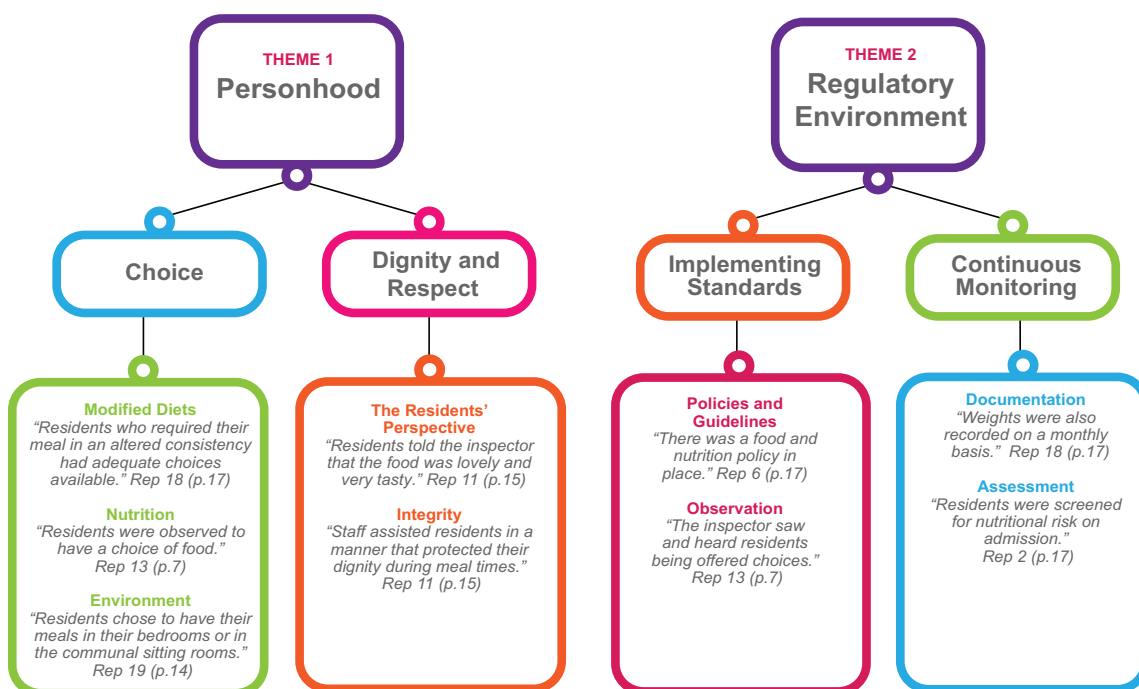
Qualitative thematic analysis was undertaken on twenty five online inspection reports of residential care settings available to the public from the period January 1st, 2016 onwards. Extracted material from the reports was analysed as outlined by Braun and Clarke (2006) and meals, mealtimes and nutrition were examined specifically in the reports. Rigour and transparency were enhanced by reflection "peer scrutiny thick description of the phenomena and examination of previous research findings."<sup>5</sup>

## RESULTS

Analysis revealed three themes;-

1. Personhood
2. Regulatory Environment
3. Access

Each theme was explored and example quotes provided. These themes highlight the primary focus in the reports is maintaining individuality, the importance of the presence of regulations, access to expertise and the multidisciplinary team is also commented on throughout the reports. The diagram below illustrates the three themes/sub-themes and examples of same that emerged from the data.







## CONCLUSION

Findings indicate that in HIQA reports, generic language is often used to reflect nutrition, meals and mealtimes in nursing homes. Dignity, privacy and choice is referenced widely in the reports reviewed. However, residents taking an active role in making decisions as far as meals, mealtimes and nutrition is not clearly alluded to. A regulatory environment, together with staffing and other organisational factors, potentially influences individualising residents' nutritional intake and their experience of meals and mealtimes. Residents taking an active role in making decisions as far as meals, mealtimes and nutrition would increase autonomy and personhood. The use of objective language as opposed to generic terms, may enhance transparency and strengthen the reporting mechanisms that are currently in place.

## REFERENCES

Available on request.

## PRESENTED

As a poster presentation at the University of Limerick on May 16th, 2018 by Siobhán Meade.



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## Fourth Year Nursing Students' Perceptions of their Educational Preparation in Medication Management - An Interpretative Phenomenological Study

### ABSTRACT

Medication safety is an integral aspect of patient safety. Nurses, as advocates of patient safety, actively consider medication safety in the course of their daily work. Hence, it is important to consider the educational preparation of nursing students in medication management, as future caregivers. There are inherent links between nurses' undergraduate educational preparation in medication management and patient safety.

The aim of this study was to explore and identify nursing students' perceptions of their educational preparation in medication management during their time with the university and their time on clinical placements with the healthcare provider, over the four years of the undergraduate nursing degree programme. Students' learning experiences in both settings are powerful in shaping their attitudes to learning, practice and professional development. This study is underpinned by an interpretative phenomenological methodological design and was conducted at a University in the West of Ireland.

Participants were final year students of three undergraduate nursing programmes, Bachelor of Science in Nursing (General), Bachelor of Science in Nursing (Intellectual Disability) and Bachelor of Science in Nursing (Mental Health). Fourteen semi-structured, face to face interviews were conducted with students on a one-to-one basis. Data were analysed using thematic content analysis. The voices and interpretations of the participants in this study were fundamental to understanding nursing students' perceptions of their preparation in medication management and provided the foundation for this research. These perceptions were captured in the format of four themes: developing an understanding, embedding knowledge in practice, engaging in practice and accepting professional responsibility.

Findings point to the important role of the university and the clinical placement settings in nursing students' medication management education. Participants in this study were developing their knowledge about medication management and attempting to embed that knowledge through engagement and full immersion in real-life clinical practice, while at the same time acknowledging and taking professional responsibility for their own learning trajectory as nursing students. This co-created qualitative data points towards the need for a collaborative, developmental approach to medication management education across the university and clinical placement settings. A pedagogical approach focused on the integration of theory and practice, using for example, simulation and technology and spiralling across the four years of students' undergraduate education is required.

The ultimate goal is to ensure that the gap between academia and practice is bridged and, upon graduation, students feel adequately prepared for practice and possess the requisite knowledge, skills and behaviours to practice safely, effectively and competently.

### SOURCE

Nurse Education Today. 2020 September;92:104512. [doi.org/10.1016/j.nedt.2020.104512](https://doi.org/10.1016/j.nedt.2020.104512)



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## A Two-Tiered Public-Private Health System - Who Stays in (Private) Hospitals in Ireland?

### ABSTRACT

The future blueprint for Irish healthcare, Sláintecare, recommends a separation of public and private hospital treatment. Despite efforts to create a universal, single-tiered Irish health system, an unequal 'two-tiered' system persists. This study from academics at Cork University Business School's Department of Economics examines patterns of overall and private hospital utilisation in Ireland, the results of which could help identify some of the impacts of the proposed separation of public and private hospital treatment.

Using data from the European Union Statistics on Income and Living Conditions (EU-SILC) collected in 2016 (n=10,131) the factors associated with inpatient hospitalisation and private inpatient hospitalisation are estimated using probit regression models. These models are routinely used to model binary outcomes such as these, wherein we analyse the factors influencing the hospitalisation decision.

The data included in the analysis consists of 10,131 individuals, of whom 47% are male, 25% are aged over 65 years, 38% reside in rural areas (the remainder are in urban areas) and 28% live in the Border/Midlands/West region (the remainder are in the Southern and Eastern region). Almost half are employed (47%) and a similar number economically inactive (47%), the remainder are unemployed (6%). With regard to individuals' health, 29% of the sample report having a chronic illness; and 82% report their health status as good or very good. With regard to medical coverage, 10% of the sample report having a medical or general practitioner (GP) visit card and private health insurance; 35% have private health insurance only; 35% have a medical card only; 2% have a GP visit card only and 18% report having neither a Medical/GP Visit Card or private health insurance.

The regression results indicate those who are economically inactive are more likely to have had an inpatient stay. Furthermore, those aged over 65, those with a chronic illness, those with private health insurance (with or without a medical/ GP visit card) are also more likely to have had an inpatient stay. However when it comes to stays in private hospitals, the results reveal that equal access to healthcare is not currently a feature of the Irish health system as certain groups, if hospitalised, are significantly more likely to access private hospitals. Specifically, those with only primary education are less likely to report an inpatient stay in a private hospital. Also, those aged over 25 and less than 65, and those with private health insurance (with or without a medical/ GP visit card) are significantly more likely to opt for a private hospital. Surprisingly however, the results suggest people living in rural areas do not appear to have different levels of access to private hospitals compared to their urban counterparts, despite the greater geographic concentration of private hospitals in the urban centres.

This timely study offers a valuable contribution to ongoing debates around centralisation of services in public hospitals, which has been strongly resisted at local levels. The findings suggest that people in areas less well served by private hospitals currently might be more willing to travel further to attend these hospitals. Furthermore, despite previous research suggesting that private hospitals tend to engage in 'cream-skimming' of lower cost patients, the findings show that those with poorer health status, despite being more likely to have a hospital stay, are no less likely than those in very good health to have an inpatient stay in a private hospital.

Understanding overall and private hospital utilisation patterns, such as those presented in this study, is imperative for implementing universal healthcare and associated resource planning, and fulfilling policy recommendations.

### PRESENTED

As an oral presentation by Dr. Aileen Murphy at the 58th European Regional Science Association (ERSA) Congress in Cork on August 28th, 2018.

### SOURCE

Health Policy.124(7):765-771. <https://doi.org/10.1016/j.healthpol.2020.04.003>



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## Software Engineering Issues - An Exploratory Study into the Development of Health Information Systems for People with Mild Intellectual and Developmental Disability

### ABSTRACT

Health Information Systems (HIS) are central to achieving better health outcomes. However, persons with Intellectual and Developmental Disability (IDD) experience healthcare inequalities, and may not always be in a position to benefit from such systems. The main aim of the study presented is to explore the usability and accessibility of HIS that are used and accessed by persons with mild intellectual and developmental disability (mild IDD). This study is part of a larger project that seeks to make HIS more user-friendly for adults with mild IDD through providing guidance for software designers and developers.

Four focus groups were held with 19 male participants aged 18-35, who have mild IDD. Workshops and observations were conducted with the participants as they worked through a pre-defined set of tasks.

Three key themes emerged - Barriers and Enablers of accessibility to HIS, Usability of HIS and Awareness of HIS.

The barriers and enablers of accessibility to HIS for men with mild IDD were:-

1. Level of knowledge and training of the individual
2. Amount of HIS content
3. Integration with social networks sites
4. Collaborative approaches within HIS
5. Consideration of degree of IDD severity
6. Facilitation and implementation of innovative HIS

A key aspect discussed within the focus groups was **Usability** – the provision of a set of specific functional elements that make it possible to easily use the HIS. Another key aspect highlighted within the focus group was **Awareness** of using and accessing HIS – as persons with IDD would be more vulnerable to breaches of confidentiality by technology-mediated exchange of information. We also found that participants are interested in systems provided through gamification.

We are continuing our work by including women with mild IDD in our study and by developing HIS built on gamification principles.

This study demonstrates the potential for using and accessing HIS based on gamification principles by persons with mild IDD. While barriers to the successful development of HIS exist, this study also identifies enablers to support the development of HIS.

### PRESENTED

As an oral presentation by Muneef Alshammari which took place online at the First International Workshop on Requirements Engineering for Wellbeing, Ageing and Health (REWBAH) in Zurich, Switzerland on August 31st, 2020.

### Acknowledgements

This work was partially supported with the financial support of the Science Foundation Ireland grant 13/RC/2094 and co-funded under the European Regional Development Fund through the Southern and Eastern Regional Operational Programme to Lero - the Irish Software Research Centre (<http://www.lero.ie>) and through the University of Hail, Saudi Arabia.

### SOURCE

1. Muneef Alshammari, Richardson Ita, Owen Doody, 2018. Health Information access for Adults with Intellectual and Developmental Disabilities: A Review of the Literature. Sixth IEEE International Conference on Healthcare Informatics, (ICHI).
2. Muneef Alshammari, Owen Doody and Ita Richardson, 2020. Health Information Systems for Clients with Mild Intellectual and Developmental Disability: A Framework. In HEALTHINF: International Conference on Health Informatics (pp.125-132).
3. Muneef Alshammari, Owen Doody and Ita Richardson, 2020. Software Engineering Issues: An exploratory study into the development of Health Information Systems for people with Mild Intellectual and Developmental Disability. REWBAH, First International Workshop on Requirements Engineering for Wellbeing, Ageing and Health.



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## Human Rights in Intellectual Disability - Identifying Literature Available to Guide Implementation of a Human-Rights Based Approach

### INTRODUCTION

Individuals with intellectual disabilities often experience inequalities in accessing their Human Rights (HR).<sup>1</sup> Within a legal framework, The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) was developed to promote, protect, and ensure the full and equal enjoyment of all HR.<sup>2</sup> However, there is a lack of knowledge in relation to HR at a service user, health and social care practitioner and organisational level.<sup>3</sup> One approach open to practitioners is the application of a Human Rights-Based Approach (HRBA) focusing on the principles of FREDa (Fairness, Respect, Equality, Dignity and Autonomy).<sup>4</sup>

### OBJECTIVE

The aim of the study was to conduct a literature search to identify the number of articles that referenced HR or the FREDa principles in disciplines central to intellectual disability (ID) services - Applied Behaviour Analysis (ABA), Positive Behaviour Support (PBS), Nursing, Social Care, and Psychology, that could guide the implementation of a HRBA.

The main objectives of this literature search were to ascertain the number of papers that referenced HR and FREDa.

### METHODOLOGY

Four electronic databases were searched (MEDLINE, PsychINFO, CINAHL and SocINDEX). Included studies contained HR or at least one aspect of the FREDa principles in the context of ID and discipline. Two authors screened all articles with an initial inter-rater agreement of 98% and with a 100% agreement reached following discussions between the authors. Peer-reviewed studies published in English from 2008 onwards were included, as this was the year the UNCRPD entered into force. The final search strategy was conducted on July 2nd and July 6th, 2020. The full search strategy is available upon request.

### RESULTS

Four thousand seven hundred and twenty one articles were retrieved from searches across 4 databases. Six hundred and seventy seven articles met inclusion criteria after duplicates and excluded studies were removed. Studies that referenced HR and FREDa were noted (see Figure 1).

### CONCLUSION

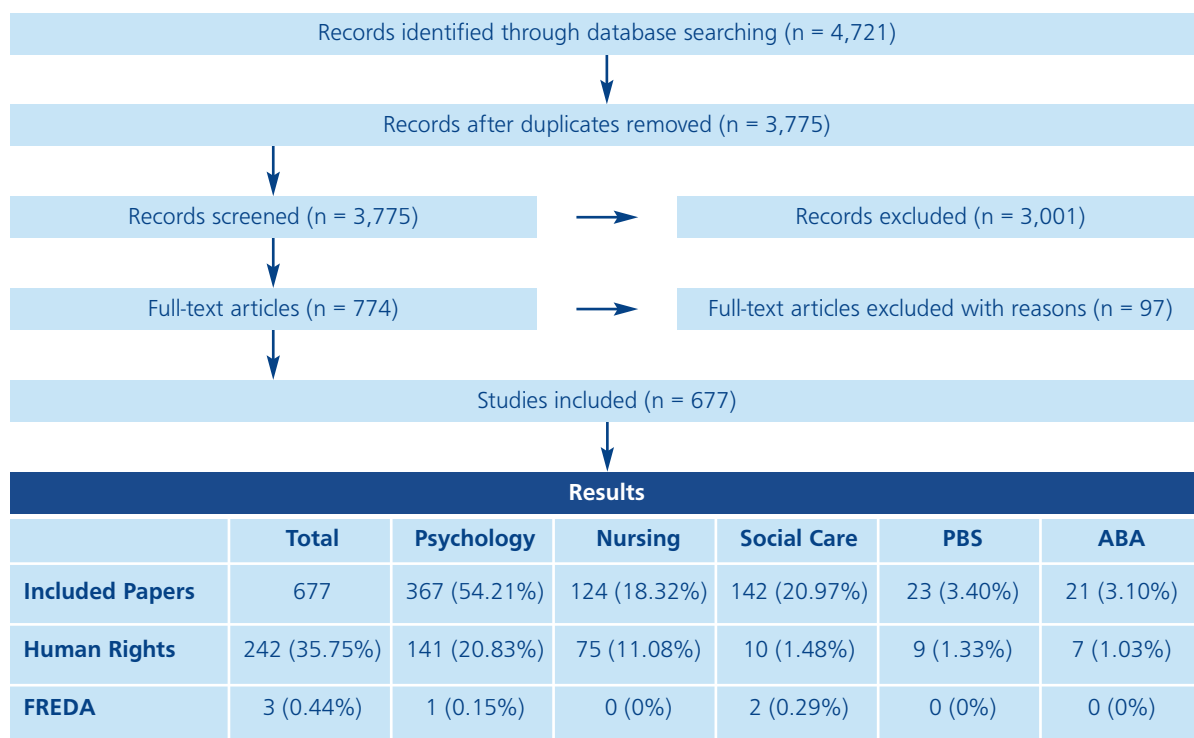
This paper is exploratory in nature and provides a baseline of references made to HR and FREDa in ID across five disciplines since 2008. The findings reveal an overall lack of literature on HR across the disciplines in the included papers (35.75%). Psychology (20.83%) presented the most publications containing the term HR with Social Care, PBS, and ABA having the least references to HR (1.48%, 1.33% and 1.03% respectively). This is surprising as Social Care and PBS in particular purport to have underlying values reflecting HR for people with disability.<sup>5</sup> These findings may partially explain the lack of knowledge that exists at service user, practitioner and organisational level.<sup>3</sup>

This paper also highlights that research has examined aspects of the FREDa principles separately with only three papers (0.44%) identified that referred to FREDa as a collective concept. This is an important finding and is contradictory to HR literature recommendations where FREDa represents an interdependent and interrelated framework to informing decisions.<sup>4</sup>

The results suggest that more focus on research in HR and FREDa is required to develop the evidence base to guide the implementation of a HRBA. The lack of literature suggests an absence of collaboration among the disciplines and it is recommended that future research takes a collaborative approach to provide a shared view of rights in the context of the person, not in the context of a discipline.

Future research on the unified concept of FREDa as a framework is also required to guide the service user, practitioner, and organisation in the implementation of a HRBA. In addition, a follow-up study is required to explore the nature of papers (discussion or applied) to establish the type of evidence that exists for front-line practitioners developing skills in HRBA.

Figure 1 - Stages of Screening Process and Results of Information Extracted



**Note:** The number and percentage of references to Human Rights or FREDA, as a collective concept, and the breakdown of these references into individual disciplines are displayed

## REFERENCES

References available upon request.

## PRESENTED

As an oral presentation by Emer Loftus at the Division of Behaviour Analysis Conference (online) on August 20th and 21st, 2020.



# Definitions of Health and Social Care Standards as used by Standards-Setting Bodies Internationally - A Narrative Review

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## INTRODUCTION

Quality improvement in health and social care is complex and achieved through many different methods. The development and publication of health and social care standards is one method. Standards are typically multi-faceted interventions written to demonstrate the desired level of care that a service should aim to provide.<sup>1</sup> However, different standards-setting bodies take different approaches to developing standards. As such, there is variation in how standards are defined.<sup>2</sup> Since it is common practice to use existing standards from other countries to inform the development of standards for another country, there is a need to identify the definitions of standards used internationally to ensure a common understanding and facilitate comparison and appropriate adaptation of standards between countries.

## OBJECTIVES

As such, the aim of this work was to examine the definitions of health and social care standards used internationally and identify similarities and differences.

## METHODOLOGY

A targeted review of grey literature was conducted during April and May 2020. Websites belonging to 15 health and social care standards-setting bodies were searched. The most recently published document pertaining to overarching standards from each organisation was retrieved, and the definition of standards provided extracted. Terms that appeared in two or more definitions were extracted. Counts and percentages were calculated for these words as a measure of their magnitude of use.

## RESULTS

Definitions were available from 12 of the 15 standards-setting bodies [Australia, Denmark (2 bodies), England, Ireland, New Zealand, Northern Ireland, Ontario, Scotland, USA, Wales and the WHO].<sup>2-13</sup> Five definitions pertained to healthcare services,<sup>2,3,5,8,11</sup> one to social care services<sup>12</sup> and six to health and social care services.<sup>4,6,7,9,10,13</sup> There was considerable variation in the definitions of standards internationally. Similarities that existed are that they are often quality statements with an emphasis on being measurable and pertaining to performance (Table 1). Other less common attributes include being evidence-based, outcome driven, concerning safety, describing processes and offering guidance.

**Table 1 - Key Terms and their Magnitude of Use in Definitions of Standards**

Key Terms	n*(%)
Quality	6 (50%)
Statement(s)	5 (42%)
Measurable	4 (33%)
Performance	4 (33%)
Set (of)	3 (25%)
Evidence-based	2 (17%)
Outcome	2 (17%)
Safe	2 (17%)
Processes	2 (17%)
Guidance	2 (17%)

\*n=number of definitions that included the key term

**CONCLUSION**

Standards definitions internationally have commonalities such as being quality statements, being measurable and pertaining to performance. However, they can also have different foci. As such, comparing standards between countries should be undertaken with caution and there is a need to adapt standards when sourced from other countries in order to ensure that they are applicable in the context of the health and social care system of another country.

**REFERENCES**

Available on request.

**FUNDING**

This work is supported by the Health Information and Quality Authority (HIQA) and is part of the Structured Population and Health-Services Research Education (SPHeRE) programme under Grant No. SPHeRE/2019/1.





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## Statutory Notifications from Designated Centres Providing Residential Services for Older Persons and People with Disabilities in Ireland - Development of an Analysable Dataset

### INTRODUCTION

In Ireland, providers of residential services for older people and people with disabilities (designated centres) have a statutory obligation to submit notifications following certain events e.g. infectious disease outbreaks, serious injury and abuse allegations, to the Chief Inspector in the Health Information and Quality Authority (HIQA). Notification data are used by HIQA inspectors to assess risk to residents and inform their monitoring approach. These data are a rich information source for quality and safety improvement initiatives, however, currently no secondary analyses are undertaken and the data are not readily analysable or accessible.

### OBJECTIVE

The aim of this research was to develop a FAIR (Findable, Accessible, Interoperable, Reusable) dataset of statutory notifications to support further analyses and herein summarise the sources of notifications received.

### METHODOLOGY

We extracted statutory notification data submitted from 2014 to 2019 by 2,568 designated centres and compiled these data to construct a dataset of notifications using R statistical software. Frequency and percentage notifications received were calculated by year, calendar month, notification type and risk rating. Frequency of notifications received by service type, sex catered for, and size were also calculated, adjusted for number of services.

### RESULTS

A total of 117,451 notifications were received from 2014 to 2019. The number of notifications received increased year on year (mean±SD:19±12%) from 2014 with 30,067 notifications received in 2019 (Table 1). Notifications were received in all calendar months with the largest proportion received in October (13%). Of the 14 notification types received, the most frequent was for "alleged abuse to a resident" (24%). The most common risk-rating of notifications was yellow (low risk), 62%. The highest number of notifications received per number of services were from designated services catering for children with disabilities, services for men only and from services with less than 30 beds (Table 1).

### CONCLUSIONS

A dataset of statutory notifications including considerations for desensitisation and ensuring utility of the resulting dataset for research purposes, was developed. This analysis on sources of notifications can help inform targeted quality and safety improvement initiatives and policy making. This work will also underpin the development of an open access dataset for novel analyses of notification data from designated centres.

### FUNDING

This research was funded by the Health Research Board's Secondary Data Analysis Project Grant [SDAP-2019-005; PI: Dr L. O'Connor] and the Health Information and Quality Authority.

Table 1 - Sources of Notifications Received from 2014 to 2019

	n	%	n per number of services
<b>Total number of notifications received</b>	<b>117,451</b>	<b>100</b>	<b>n/a</b>
<b>Per year</b>			
2014	13,137	11	n/a
2019	30,067	26	n/a
<b>Per month</b>			
February (lowest)	6,860	6	n/a
October (highest)	14,798	13	n/a
<b>Notification type (n=14)</b>			
NF08 (Staff member is the subject of review)	48	0	n/a
NF06 (any alleged abuse)	27,665	24	n/a
<b>Risk-rating</b>			
Green (negligible)	34,366	29	n/a
Yellow (low)	73,230	62	n/a
Orange (moderate)	7,511	6	n/a
Red (high)	138	0	n/a
<b>Service type (n=2,142)*</b>			
Designated Centres for Disabilities (Children and adults) (n=12)	1,754	n/a	146
Designated Centres for Disabilities (Children) (n=18)	3,130	n/a	174
Designated Centres for Disabilities (Adults) (n=441)	61,366	n/a	139
Designated Centres for Older People (n=1,671)	50,609	n/a	30
<b>Service sex (n=1,878)**</b>			
Men (n=14)	3,142	n/a	224
Women (n=31)	3,258	n/a	105
Men & Women (n=1,833)	10,559	n/a	58
<b>Service size (n=1,878)**</b>			
Large (100+ beds) (n=342)	9,262	n/a	27
Medium (31-99 beds) (n=999)	34,093	n/a	34
Small (1-30 beds) (n=537)	68,636	n/a	128

\*n=426 missing values \*\* n=690 missing values



# A Literature Review on the Health Benefits of Tea Consumption

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The aim of this literature review is to understand what, if any, are the health benefits of tea consumption. In doing so, the objective is to present relevant findings and highlight how these benefits can be incorporated practically into healthcare settings.

A review of the literature was conducted utilising a number of databases including, but not limited to, Pubmed, Science Direct and Cochrane.

Tea is derived from the *Camellia Sinesis* plant. The cultivation of tea leaves from this plant dates back over one hundred years, various blends and flavours of tea can be processed if blended with other plants, for example; Earl Grey, Chi, Herbal Teas are derived from various plants and flowers e.g. Chamomile Tea. Tea leaves may be black (fermented), green (non-fermented) or oolong (semi-fermented) depending on the drying fermentation process, which in turn determines the chemical composition of tea.

Black tea contains antioxidants and its composition aids reduced inflammation in the body, long-term inflammation is associated with ailments such as haemorrhoids, gastrointestinal pain, arthritis and depression.<sup>1,2</sup> Consumption of black tea assists in the excretion of free radicals, reducing cell damage to one's body. Evidence suggests that this may reduce one's risk of contracting various chronic diseases such as cancer and cardiovascular diseases. Polyphenols are antioxidants found in various beverages and foods. The main polyphenols found in black tea are catechins, theaflavins and thearubigins. Imran et al.<sup>3</sup> reported from their research on rats a reduction in cholesterol and blood sugar levels with the cohort group that consumed black tea.

Green tea contains polyphenolic compounds, (-)-epigallocatechin-3-gallate (EGCG)(-)-epigallocatechin (ECG)(-)-epicatechin-3-gallate(ECG) and (-)-epicatechin (EC). Flavanols including myricitin, kaempferol, quercetin and their glycosides are present in tea composition. An average cup of tea contains 250-350mg tea solids of which up to 42% are catechins and 6% caffeine. Catechins are active constituents in tea, EGCG are potent catechins and much of the anti-carcinogenic effects of green tea are attributed to them. Due to the degree of oxidation during processing, various types of flavonoids exist in black and green tea. However, the polyphenol count is similar. Caffeine in tea can interfere with sleep and block the effect of theanine. Theanine is an amino acid found in tea leaves which has an anti-stress effect on the body. Unno K. et al.<sup>4</sup> examined the effects of consuming lowered caffeine-content green tea (LCGT) on one's stress output and quality of sleep patterns in a cohort of middle-aged people in a double-blind crossover design. Standard green tea (SGT) was used with the control group. Each tea (>300ml/day) was diluted with room temperature water over one week after a single wash-out term.<sup>5</sup> The salivary  $\alpha$ -amylase activity level (s.A.A) a stress marker was largely reduced in the experimental cohort that consumed LCGT (64.7U/ml) in comparison to those that consumed SGT (73.9U/ml). Additionally, sleep quality was notably improved in the experimental cohort.

Chamomile tea is derived from the chamomile flower. Villnes<sup>6</sup> highlighted studies that have shown the benefits of the consumption of chamomile tea for the following ailments:-

- Menstrual pain/tension/anxiety
- Treatment in diabetes reducing blood sugar levels
- Reduction of inflammation in many conditions
- Prevention and treatment of various cancers
- Sleep problems. The consumption of chamomile tea may function like a benzodiazepine potentially binding to the benzodiazepine receptor. However, there are limited clinical trials in this area

Chang S.M. and Chen C.H.<sup>7</sup> reported in their study of postpartum women that the experimental cohort who consumed chamomile tea reported significantly lower scores of physical symptoms related to sleep inefficiency ( $+ = 2.482$ ,  $p = 0.015$ ) and lower symptoms of depression ( $+ = -2.372$ ,  $p = 0.020$ ). However, after four weeks similarity was noted amongst all participants in the study. Chamomile tea may be contraindicated in those suffering allergies and young children due to botulism spores.

Having reviewed the literature it is evident that tea consumption (black/green/herbal) is beneficial to most in protecting health, preventing ailments and easing the pain of some ailments. Further clinical trials would be warranted to study the effect specific teas and their consumption have on specific ailments or on a specific population group e.g. psychiatric conditions. The author envisions that tea may be utilised as an alternative or a complementary aid for sleep conditions and in behavioural change management programmes in hospital and community settings e.g. smoking and alcohol cessation, weight loss programmes. The author will disseminate this information to relevant stakeholders and utilise same when pursuing further research in this area with a specific population.

## REFERENCES

Available on request.

## Hand Hygiene Practices - A Review of the Literature

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Hand Hygiene in healthcare personnel remains the most effective mode in combating infections including healthcare associated infections (HAIs).<sup>1,2,3</sup> Increasing patient morbidity and heightened healthcare costs signify that HAIs need to be controlled and prevented from further spread.<sup>4</sup>

Compliance amongst healthcare workers continues to warrant surveillance.<sup>5,6</sup>

Petit et al.<sup>7</sup> noted from their European study which spanned over three years that nurses had better compliance with hand hygiene practices in comparison to other healthcare workers. Ironically, the findings noted that lower compliance with hand hygiene occurred when performing activities that had a higher risk of cross-infection. The authors concluded that this was secondary to inadequate staffing resources, inaccessible facilities and lack of available time to conduct tasks. Other authors in reviews undertaken by them concurred with this conclusion.<sup>8,9,10</sup> McBride et al.<sup>11</sup> identified nurses as having better compliance with hand washing techniques in comparison to doctors, physiotherapists, ward assistants, catering and domestic staff. Creedon<sup>12</sup> in their Irish study observed that healthcare workers' compliance with hand hygiene improved from 51% pre-intervention to 83% post-implementation of the hand hygiene campaign. At the time the Irish baseline of 51% hand hygiene compliance surpassed international baselines which were <50%.<sup>13</sup> Recommendations from this study included; placement of alcohol hand-rubs at each bedside, regular auditing, regular multidisciplinary education in compliance and why one engages in hand hygiene practices. Thus, education should cover relevant evidence-based studies.<sup>14</sup>

The World Health Organisation launched the first Global at Safety Challenge –'Clean Care is Safe Care' in 2009 ([http://whqlibdoc.who.int/publications/2009/9789241597906\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf)) in an attempt to address continuous problematic compliance worldwide. A summarised version offers a comprehensive guide to healthcare workers in all WHO official languages. The guidelines provide healthcare workers with high quality evidence-based interventions on hand hygiene practices to increase worldwide compliance and subsequently reduce HAIs and the economic impact of same on healthcare expenditure. An implementation toolkit is available at <http://www.who.int/gpsc/5may/tools/en/index.html>.

Hand hygiene is the simplest, most effective infection control measure in preventing transmission of nosocomial infections.<sup>16</sup> Failure to comply with good practice is recognised world-wide as the leading cause of contracting healthcare associated infections and the spread of multi-resistant organisms and subsequent epidemics.<sup>17</sup> The WHO (2009) linked epidemics with understanding and overcrowding leading to poor hand hygiene compliance amongst staff. An economic analysis of the 'clean your hands' campaign implemented in England and Wales identified that the campaign would be cost-effective if HAI prevalence reduced by 0.1%.

In 2005, there were 50 medicolegal claims against the Irish state relating to MRSA infection.<sup>18</sup> Krishnan et al.<sup>19</sup> who conducted research on epidemic strains of MRSA,<sup>20</sup> subsequently highlighted the importance of multidisciplinary staff education on relevant evidence-based studies/research applicable to infection control practices to heighten staff comprehension and compliance with hand hygiene practices. Donald et al.<sup>21</sup> investigated the incidence of MRSA bacteria in a cross-border study.<sup>22</sup> The regions highlighted denote the Health Boards of Northern Ireland. Community acquired MRSA (CA-MRSA) is another category of nosocomial bacterium with bivarious strains. One must be cognisant that MRSA has a survival period of up to 51 days on polythene. CA-MRSA produces a toxin called panton-valentin leukocidin which is linked to a highly transmittable and fatal form of pneumonia.<sup>23</sup>

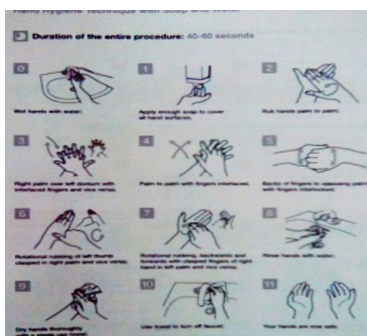
### Hand Hygiene Practices

Compare hand hygiene technique in Figure 1 against Figure 2 and observe if any changes have occurred since Orpen's 2005 review.

Figure 1



Figure 2





A weakness of the WHO<sup>24</sup> summary document is identified i.e. the omission of wrist washing in the hand washing and alcohol hand-rub techniques. Another weakness is the omission of stating a water temperature to achieve optimal hand washing practice. Refer to the document for a comprehensive summary on indications for hand hygiene, hand hygiene techniques, hand hygiene agents, skin care, use of gloves and other aspects of hand hygiene including nail care, educational programmes and accountability. A further weakness in the summary document is the omission of guidelines around the wearing of hand jewellery and nail polish.

A strength in the publication is the new standard operating procedure for hand hygiene practice aimed at each member of the multidisciplinary team referred to as 'My 5 moments for hand hygiene,' obtainable @ [http://www.who.int/gpsc/5 may/Guide to implementation.pdf](http://www.who.int/gpsc/5may/Guide%20to%20implementation.pdf)<sup>25</sup>

In conclusion, hand hygiene practice should follow the WHO initiation guidelines and healthcare workers hands should be washed with soap and water when visibly soiled or when exposed to bodily fluids or hazardous material, additionally when exposed to potential spore-forming organisms and pre- and post-lavatory usage.<sup>26</sup> Alcohol hand-rubs used for hand disinfection do not rely on specific infrastructure, are quick acting and should be made available at the point of care using caution in psychiatric and paediatric wards due to their high alcohol content and flammability.

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Available on request.



# Phubbing – A Review of the Literature of this 21st Century Phenomenon

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To phub someone is to ignore one's companion(s) in order to pay attention to one's phone or other mobile devices.<sup>1</sup> The term originates from an Australian advertising campaign in 2012 where the word phone and snubbing (from the word snub) were blended together.

Phubbing is also referred to as "co-present" phone use. There is limited research on this 21st century phenomenon and how to measure it. Mariek et al.<sup>2</sup> developed two scales of measurement namely:-

1. The Generic Scale of Phubbing (GSP) to assess phubbing behaviour.
2. The Generic Scale of being Phubbed (GSPB) to assess the experience of being phubbed.

The psychometric properties of both scales were found to be viable and reliable. The result of the subsequent study thereafter found that phubbing occurred in 62/100 observed conversations and it was noted that phone screens were shared in 30% of these conversations. The average frequency of phone use was 3.16 times per dyad (SD=2.5) for a median duration of 99 seconds (SD=225.2).

The author conducted a literature review utilising relevant databases applicable to the review.

Recall of the last 10 minutes of phone usage/conversation was reported to be low for all 100 participants. If one's partner was using the phone, their significant other perceived less intimacy in the conversation.<sup>3</sup>

Przybylski, A.K. and Weinstein, N.<sup>4</sup> concluded in their past experiments that mobile phone presence was found to have negative effects on human relationships as regards conversation quality, connection and closeness, particularly if individuals are discussing private personal topics.

Research is available on the effect mobile presence has on one's attention span e.g. attention span while operating vehicles.<sup>5</sup> Phone usage can divert an individual's attention and focus from the present moment "the here and now," having a negative knock-on effect on interpersonal relationships.<sup>6</sup>

Phubbing may affect the significant other's mental wellbeing such as one's self-esteem and feeling of belonging.

To conclude, there is limited international and national research available on the effect phubbing has on one's mental health, interpersonal relationships and close intimate relationships.

The author recommends further research be undertaken in these areas and that the results be disseminated to relevant key government stakeholders so as to apply the findings positively.

## REFERENCES

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