

Title of paper: Can general practice help address youth mental health? A retrospective cross sectional study in Dublin's South Inner City

Authors: D Connolly¹, D Leahy⁶, G Bury¹, B Gavin^{2,3}, F McNicholas^{1,2}, D Meagher^{1,6}, FD O'Kelly⁴, P Wiehe^{1,5}, W Cullen^{1,6}

Affiliations: ¹ UCD School of Medicine and Medical Science; ² Lucena Clinic, ³ Dublin East Treatment & Early Care Team, ⁴ Department of Public Health and Primary Care, Trinity College, Dublin, ⁵ Sundrive Medical Centre, Dublin, ⁶ Graduate Entry Medical School, University of Limerick.

Names, institutional addresses and email addresses of all authors:

Denise Connolly, UCD School of Medicine and Medical Science, Coombe Healthcare Centre Dolphins Barn, Dublin 8, Ireland (denise.connolly@ucdconnect.ie).

Dorothy Leahy, Graduate Entry Medical School, University of Limerick, Ireland (Dorothy.Leahy@ul.ie);

Gerard Bury, UCD School of Medicine and Medical Science, Coombe Healthcare Centre Dolphins Barn, Dublin 8, Ireland (gerard.bury@ucd.ie);

Blanaid Gavin, Lucena Clinic, Rathgar, Dublin 6 (blanaid.gavin@sjog.ie);

Fiona McNicholas, Lucena Clinic, Rathgar, Dublin 6 (fiona.mcnicholas@sjog.ie);

David Meagher, Graduate Entry Medical School, University of Limerick, Limerick, Ireland (david.meagher@ul.ie);

Fergus O'Kelly, Department of Public Health and Primary Care, Trinity Centre for Health Sciences, AMINCH, Tallaght, Dublin 24, Ireland (feokelly@tcd.ie);

Philip Wiehe, Sundrive Medical Centre, Sundrive Road, Crumlin, Dublin 12, Ireland (pwiehe@eircom.net)

Walter Cullen, Graduate Entry Medical School, University of Limerick, Limerick, Ireland (walter.cullen@ul.ie).

Corresponding author: W Cullen, Graduate Entry Medical School, University of Limerick, Limerick, Ireland (walter.cullen@ul.ie).

Tel: +353 61 202812

Fax: +353 61 233778

Abstract

Aims. With general practice potentially having an important role in early intervention of mental and substance use disorders among young people, we aim to explore this issue by determining the prevalence of psychological problems and general practice / health service utilisation among young people attending general practice.

Methods. A retrospective cross sectional study of patients attending three general practices in Dublin city.

Results. Among a sample of young people (mostly female, 44% GMS-eligible), we observed considerable contact with general practice, both lifetime and for the two years of the study. The mean consultation rate was 3.9 consultations in two years and psychosocial issues (most commonly stress / anxiety and depression) were documented in 35% of cases. Identification of psychosocial issues was associated with GMS-eligibility, three or more doctor consultations, and documentation of smoking and drinking status.

Conclusions. Psychosocial issues are common among young people attending general practice and more work on their epidemiology and further identification in general practice is advocated.

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Keywords:

(1) mental disorder; (2) primary care; (3) substance use; (4) youth; (5) adolescent health.

Introduction

Transition through adolescence to young adulthood can be a turbulent and distressing time. Indeed, mental and substance use disorders are a leading cause of morbidity among young people¹, with depression, anxiety and problem substance use accounting for 75% of this burden². In Ireland, psychological morbidity has been reported in 21-27% of young adults³⁻⁷ and recent estimates report the fourth highest rate of youth suicide and self harm in the European Union⁸.

‘Early intervention’, involving diagnosis and treatment soon after illness onset, is associated with considerable health, economic and social gains for a number of psychological illnesses⁹⁻¹⁰, including psychosis¹¹⁻¹², depression¹³, bipolar illness¹⁴, personality disorder¹⁵ and problem drug use¹⁶. Internationally, models of care that aim to achieve these goals have emerged in recent years. For example, Ireland’s ‘National Centre for Youth Mental Health (*Headstrong*)’ has developed a best practice model for the delivery of youth mental health services, which aims to promote the integration of all existing youth mental health expertise, GPs and supports within the community for youths aged 15-25¹⁷.

Primary care is a key element of the multi-agency response which allows for effective youth mental health care^{9 18-19}. To date, no data has reported on the role of general practice in Ireland in addressing youth mental health. The primary aims of this study were to explore this issue by determining the prevalence of psychological problems and general practice / health service utilisation among young people attending general practice.

Method

Overview

A retrospective cross sectional study of patients attending three general practices in Dublin city, involving:

- extraction of practice level consultation data
- clinical records review.

Setting

The study was carried out at three practices in Dublin city, each situated in an area of high socio-economic deprivation and with a high prevalence of problem drug use, where youth mental health has been identified as a priority issue²⁰⁻²². Problem drug use has been a longstanding issue in Dublin South City, though recent data indicates a rise in problem drug use in other urban centres²³⁻²⁴. At the time of this study, access to counselling and psychological services was generally only possible after initial assessment by adult / child and adolescent mental health teams, though local arrangements meant these services were provided by primary care teams in some areas.

One member of the research team was a GP principal at each participating practice (see Table 1 for practice description). We decided to base this study at a small number of practices because:

- Mental health and problem drug use among young adults are a special interest of each practice;
- Each practice uses the same practice management (information) system;
- For exploratory studies of this nature, local experience would indicate it is better to base such work at practices that are conducive to research and that can inform methodology²⁵⁻²⁶.

Study population

At practice level, the study population included all patients registered as 'active' patients with the participating practices at the time of data collection. For patient level data, we searched each practice's practice information system to identify 'active' patients aged 15-25. A 10% random sample was then identified using a random number generator and the electronic clinical record of each case was reviewed. Based on a review of the practice information system of one practice, we estimated this would provide data on a total sample size of 150 patients.

Data collection and analysis

A search of each practice's information system was carried out to identify the total number of registered patients aged 15-25 (n=3120). The clinical record of each was then reviewed to exclude patients who had not attended the practice in the previous two years. This identified a

study population of 1800 'active' patients, from which we selected a random 10% sample for more detailed review.

Data was collected from the electronic clinical record using a study instrument previously validated for morbidity surveys in general practice in Ireland²⁷. Clinical records were retrospectively reviewed for a two-year time period from the date of data collection and the data collected were anonymised.

With regard to the primary study objectives, 'general practice service utilisation' was recorded by documenting consultations with a GP or other healthcare professional in the practice. Additionally, the 'prevalence of psychological morbidity' was recorded by documenting those consultations in which a 'psychological problem' was identified. To this end, we used a list of problems which were reported by young people in recently published national community based survey². Data was also collected on demography, acute / recurring / chronic morbidity (coded with WHO's International Classification of Primary Care (ICPC) 2), acute/repeat prescriptions, secondary care / emergency services utilisation and out of hours GP co-operative) and investigations arranged / performed by the practice.

Clinical records were reviewed by the lead researcher and one GP in each practice and analysed using PASW (SPSS) version 18.0. Statistical analyses included Pearson's chi-squared test to determine the significance of associations between categorical variables and Student's t-test to compare means of continuous variables.

Ethical considerations

All data were anonymous, with identifying patient details removed at time of data collection. Data was collected from clinical records by a member of the research team and entered to an electronic database, stored on a password protected computer at the host institution. In compliance with existing data protection legislation, the researcher involved in data collection was nominated as an agent of each practice. GPs were involved in data collection to both ensure that any issues requiring clinical follow up were reviewed by the GP with clinical responsibility for the patient's ongoing care and to minimise potential bias resulting from coding and interpretation of clinical problems. The study was reviewed and approved by the Irish College of General Practitioners Research Ethics Committee.

Results

Population characteristics and prevalence of psychosocial issues

Data were collected on 180 young people attending general practice (mean age 21), of whom 99(55%) were female, 79(44%) were GMS-eligible (Ireland's means-tested free general practice system). Smoking status was documented in 69(38%), of whom 23 were smokers; drinking status was documented in 20(9%) cases, of whom nine were daily / weekly drinkers.

One or more psychosocial issues were documented in the clinical records of 63/180 (35%) during the study period, with 47 patients having one, and 16 having more than one, consultation involving psychosocial issue(s). Twenty-eight different problems were identified (Table 2) most commonly: stress / anxiety, depression, relationship difficulties, drugs, bereavement, sexuality. Seven recurrent prescriptions for psychoactive medication had been issued during the time period of the study and these were SSRIs (five), risperidone (one) and diazepam (one).

General practice / health service utilisation and morbidity

Considerable contact with the practice was observed, with respective means of 3.9 GP consultations (median: 3, range: 0-20), 0.5 practice nurse consultations (median: 0, range: 0-7) and 1.2 interactions with the practice for a 'repeat prescription' (median: 0, range 0-18) during the two-year study period. In addition, 122(70%) had been attending the practice for five or more years, 10(58%) had consulted with a doctor at the practice on three or more occasions.

Seventy-four (41%) attended the practice with a 'chronic' or 'recurring' problem, with 'asthma' (15 patients), 'UTI' (seven), 'acne' (six), 'low back pain' (five) and 'psoriasis' (five) the most common. Of 25 patients who had a documented 'chronic' problem, five had attended secondary care; of 64 patients who had a 'recurring' problem, 17 had attended secondary care. A total of 172(96%) attended the practice with an 'acute' problem, with 'OCP check' (33 patients), 'sore throat' (20), 'respiratory infection – other' (20), 'cough' (17), and headache (12) the most common reasons for attendance.

Eighty-seven (48%) had been referred to or attended secondary care; Obstetrics / Gynaecology (18), Radiology (16), Emergency Medicine (16), Dermatology (11) being the

most common, with five attending Psychiatry. Forty (22%) had attended a GP cooperative / deputising service and 75(42%) had an investigation performed / arranged by the practice.

Table 3 summarises key population, morbidity and general practice / health service utilisation data and highlights those variables significantly associated with patients having a documented psychosocial issue, which were: GMS eligibility, having had at least three doctor consultations, documented smoking, documented drinking.

Discussion

Key findings

Among a sample of young people (mostly female, 44% GMS-eligible) in Dublin's south inner city, we observed considerable contact with general practice, both lifetime and for the two years of the study, with 70% having attended the practice for at least five years and a mean of 3.9 consultations in the preceding two years among the sample. Psychosocial issues were documented in 35% of cases and this was significantly associated with GMS-eligibility, three or more doctor consultations, and tobacco and alcohol use. Most common psychosocial issues included stress / anxiety and depression.

Strengths and limitations of study

Validity of the data reported in this paper is likely to have been enhanced by the practices in which it was conducted (research-active, a special interest in the topic and with advanced practice information systems) and the method of data collection (two researchers validating and cross-checking data that had been extracted and a study instrument developed to minimise variation between researchers)²⁶. However, these practice features mean they are unlikely to be representative; thus the possibility of ascertainment bias can not be discounted. The study's retrospective nature, dependency upon prior documentation of issues within consultation notes and our interpretation of these records is likely to have underestimated true period prevalence of psychosocial issues in the sample.

How this relates to other literature

Though consistent with similar work in general practice^{28 29}, that 35% of those who attended these practices over a two year period had one or more documented psychosocial issues is a higher period prevalence than that reported in other community-based studies in Ireland³⁻⁷.

Identification of psychosocial issues in general practice is a challenge and well-documented barriers to identification include: younger age²⁹, belief that GPs have little to offer³⁰, stigma³¹ and concerns about confidentiality³². Though healthcare professionals working in primary care, especially GPs, can identify and address mental health issues at an early stage^{17 33-34}, challenges such as young people experiencing mental health problems being more likely to present to primary care with physical symptoms³⁴⁻³⁶ and fear of misinterpreting developmental changes that coincide with adolescence for a mental disorder³⁷ and ‘over-medicalising’ young lives³⁸ are important barriers. That general medical issues had been explored in a large number of consultations supports some of these findings and also suggests each such consultation represents an opportunity to discuss psychosocial issues with the young person.

Similar to previous research which reported annual GP attendance rates of 75-90%³⁹⁻⁴⁰, over half the current study population had attended their GP for 5-10 years. Thus, general practice is ideally placed to identify and respond to psychosocial issues. However, while young people may engage regularly with general practice, this is rarely to discuss psychosocial issues, which are the presenting complaint in only 2-12% of young people’s consultations^{6 35-36}. Indeed, GPs are not consulted by young people with psychosocial issues, even in dire circumstances^{31 41} and approximately one-third of young people indicated they would attempt to ‘sort things out’ themselves^{3 41}. A number of factors may explain why young people are reluctant to attend a GP when experiencing a psychological issue and these include cost⁷, geographical distance¹⁸, that family and friends are often the first point of contact when experiencing psychological distress³¹, misconceptions about availability of support offered by GPs, perceived lack of youth friendly services, lack of mental health literacy and a belief that treatment will not help^{31 41-42}.

To capitalise on the longstanding relationship that exists between GPs and young people, recognised existing barriers to disclosure and identification of psychosocial issues need to be identified and addressed. As well as reducing the stigma that surrounds mental health, we hope current efforts to improve mental health literacy among young people and the wider community will highlight that the GP is a health professional who can help. Making general

practice more ‘youth-friendly’ (e.g. lower cost, accessible, non-judgemental and confidential) will be a key parallel goal. Specific training in identifying psychosocial issues⁴³⁻⁴⁵ and encouraging the use of practical screening tools⁴⁶⁻⁴⁷ may also be of value. For example, the ‘Headspace Assessment Interview’ may be both acceptable and useful in identifying a wide range of psychological and social problems reflected by its content, screening and probing questions in a number of domains⁴⁸.

When psychosocial issues are identified in general practice, what next? Integrated care, whereby general practice is linked with supportive psychology and psychiatric services has demonstrated effectiveness in improving short and long term outcome measures of adults with depression⁴⁹ and is the subject of an ongoing trial in the UK⁵⁰. Though the utility of such a model for young people with psychosocial issues remains untested, an intervention whereby primary care physicians treating depressed adolescents were supported by psychotherapists trained in cognitive behavioural therapy showed a reduction in levels of severe depression, and improved quality of life⁵¹. The Primary Care ‘Behavioural Health Model’ suggests that behavioural health providers deliver brief consultative interventions in primary care⁵²⁻⁵⁶. In a review of studies that suggest the feasibility and effectiveness (or lack thereof) of a range of specifically adapted psychotherapeutic interventions for primary care, cognitive behavioural therapy (CBT), CBT combined with pharmacotherapy, cognitive behavioural therapy for late life general anxiety disorder in primary care, interpersonal counselling, and internet-based CBT resulted in superior health outcomes compared to usual care⁵⁷.

Our finding that stress / anxiety, depression, relationship issues, drugs, bereavement and sexuality were common problems is reflective of studies on psychological morbidity in community samples in Ireland and elsewhere^{2 39 58-59}.

Finally, we observed two potentially valuable resources (psychiatry, practice nursing) in supporting young people with psychosocial issues both of whom were attended by small numbers, reasons for which should be explored in further research.

Implications for research, education, clinical practice

This study highlights a need for further research on the epidemiology of psychosocial issues among young people attending general practice. A larger, more representative sample of practices would make for more generalisable findings regarding the prevalence of key

psychosocial problems while longitudinal studies would enable determination of their incidence.

General practice may indeed have an integral role in any future collaborative community based service delivery model which aims to support and care for psychosocial issues among young people. Supporting general practice to realise its potential in this respect, by exploring and addressing barriers to identification is a priority for future research, training and service development.

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Authors’ contributions

WC conceived the study, WC, BG, FMN, GB, PW, FDOK wrote the proposal, DC, WC, PW, FDOK collected the data, DC, WC, DL analysed the data. DC, WC, DM, DL drafted the manuscript. All authors read and approved the final manuscript.

Conflicts of interest

None declared

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Appendix 1. Study instrument used in data collection.

A. Administrative details

1. HSE area of practice

East Coast

Northern

South western

Southern

NW

Midland

Western

Mid western

NE

B. Demography

1. Gender

Male

Female

2. Age last birthday

2a. DOB

3. Health cover

GMS

Non-GMS

4. Area of residence

4a. DED

4b. CCA

4c. County registration plate

C. Social History

1. Smoker: Y N

2. Alcohol intake:

D. Patient Morbidity

1. Which illnesses that require ongoing follow up have been documented at the time of data being collected and / or at any time in the past.

Documented <i>chronic</i> illnesses	ICPC code	Has attended secondary care for this problem (please tick)

<i>Recurring</i> problems	ICPC code	Has attended secondary care for this problem (please tick)

2. Documented acute illnesses in the preceding 2 years (and their ICPC-2 code)

<i>Acute</i> illness	ICPC code	<i>Acute</i> illness	ICPC code

3. Was there a consultation in which any psychosocial issue, as per headstrong, has been documented?

Yes

No

3a. How many occasions was said issue discussed? _____

3b.

Date of consultation	Issue Discussed	Description of Discussion

E. Prescriptions

1. If the patient attended today for a *repeat* prescription, what medication would be prescribed?

Medication (generic name)	Medication (generic name)

2. *Acute / non-recurrent* medications in the last 3 months

Medication (generic name)	Medication (generic name)

F. Primary / Secondary Care service utilisation

1. Date first referred to / attended general practice _____

2. In the last 2 years, number of consultations (**including antenatal care**) with:

2a. a doctor in the practice: _____

2b. another healthcare professional in the practice: _____ who?

3. How many different doctors has the patient seen in the last two years? _____

4. Has patient been referred to or attended secondary care (including emergency departments) in the last 2 years?

Yes No

4a. If yes, please specify:

Specialty	Referred by practice

5. Has patient attended out of hours / GP deputising service in the last 12 months?

Yes No

5b. If yes, please specify:

Date	Problem	ICPC code

6. Has patient had a diagnostic investigation arranged / performed by the practice in the last 12 months (excluding urine toxicology)?

Yes No

6b. If yes, please specify:

Investigation category	Please tick
Pathology	
Diagnostic imaging	
Other	

Appendix 2. Tables used in text.

Table 1. Characteristics of practices that participated in study.

	<i>Description</i>	<i>Clinical records</i>
<i>Practice A</i>	3.0 FTE doctor teaching general practice in Dublin's south inner city	Combined electronic / paper
<i>Practice B</i>	2.5 FTE general practice in Dublin's south inner city	Combined electronic / paper
<i>Practice C</i>	3.0 FTE doctor teaching / training practice in Dublin's south west inner city	Combined electronic / paper

Table 2. Psychosocial issues discussed during consultations.

<i>Issue</i>	<i>Number of consultations in which issue discussed</i>	<i>% of total</i>
Stress / anxiety	20	10.3
Depression	13	6.4
Relationship	12	5.8
Drugs	8	3.9
Bereavement	8	3.9
Sexuality	8	3.9
Insomnia	7	3.4
Eating habits / disorder	6	2.9
Family conflict	4	2
Academic stress	4	2
Antisocial behaviour	4	2
Alcohol	3	1.5
Deliberate self harm	3	1.5
Bullying	3	1.5
Low self esteem	3	1.5
Worried about family member	3	1.5
Sexual abuse	Two or less	
Suicidal ideation		
Post traumatic stress		
Weight gain		
Anger management		
Not enjoying work		
Can't concentrate		
Learning disability		
Addiction to pornography		
Social isolation		
Exercise		
Miscarriage		

Table 3. Key population, general practice / health service utilisation and morbidity data and their association with a documented psychosocial issue.

Factor	'Psychosocial issue' documented (n=63)	'Psychosocial issue' not documented (N=117)	Total study population (N=180)	Chi-squared (p value)
Male	26/63	55/117	81/180	0.55(0.46)
GMS-eligible	36/63	43/117	79/180	6.91(<0.01)
Record indicated person smoked	13/63	10/117	23/180	5.37(<0.05)
Record indicated person drank at least socially / occasionally	8/63	5/117	13/180	4.34(<0.05)
At least one 'chronic' illness or 'recurring' problem	30/63	44/117	74/180	1.70(0.19)
At least three doctor consultations	46/63	58/117	104/180	9.23(<0.005)
At least three 'acute' illnesses	40/63	57/117	97/180	3.60(0.06)
Referred to at least one secondary care clinic	35/63	52/117	87/180	2.21(0.16)
Had attended out of hours / GP deputising service	15/63	25/117	40/180	0.14(0.71)