

The Mental Health of Children & Parents in Northern Ireland

Results of the Youth Wellbeing Prevalence Survey

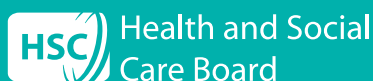
October 2020



Youth Wellbeing NI

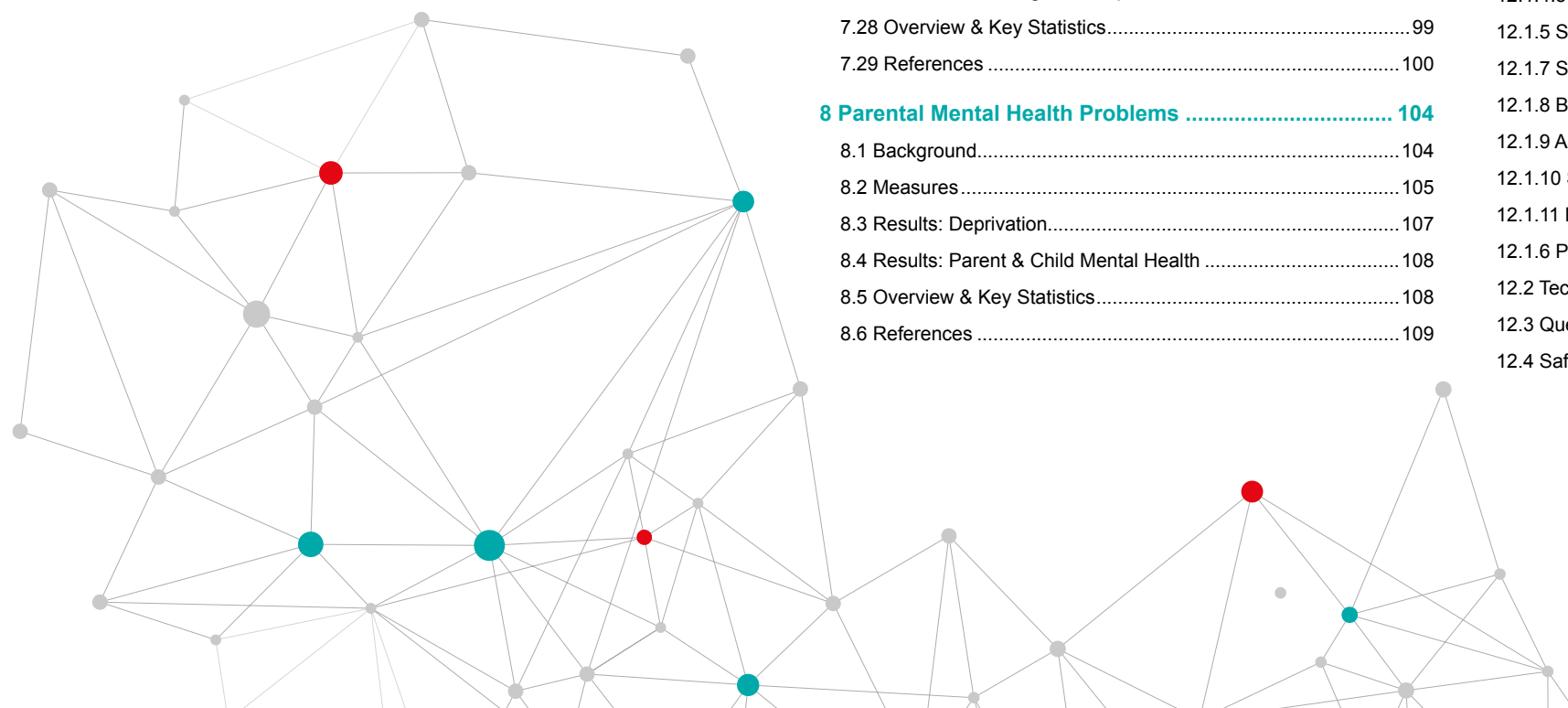
Authors

Lisa Bunting, Claire McCartan, Gavin Davidson, Anne Grant, Orla McBride, Ciaran Mulholland, Jamie Murphy, Dirk Schubotz, Julie Cameron & Mark Shevlin



Contents

Foreword	4	5 Young People at Risk of other Mental Health Problems	56	7 Behaviours & Experiences	78	9 Child Mental Health: Family & Social Context	112
Executive Summary	6	5.1 Screening for Mental Health Problems	56	7.1 Adverse Childhood Experiences: Background	78	9.1 Background.....	112
Background	6	5.2 Autism Spectrum Disorder: Background.....	57	7.2 Adverse Childhood Experiences: Measure.....	79	9.2 Child Demographics & Characteristics	112
Methodology	6	5.3 Autism Spectrum Disorder: Measures	58	7.3 Adverse Childhood Experiences: Prevalence.....	80	9.3 Family Circumstances & Experiences	113
Key Findings.....	6	5.4 Autism Spectrum Disorder: Prevalence.....	60	7.4 Adverse Childhood Experiences: Deprivation	81	9.4 Socioeconomic Circumstances & Neighbourhood Factors	113
Conclusions & Implications of Study Findings	11	5.5 Autism Spectrum Disorder: Deprivation.....	60	7.5 Adverse Childhood Experiences: Overview & Key Statistics.....	82	9.5 Complex Interactions.....	114
Acknowledgements	12	5.6 Autism Spectrum Disorder: Overview & Key Statistics.....	61	7.6 Social Media Use: Background	83	9.6 Results.....	115
Project Team, Project Board, & International Advisory Group	13	5.7 Psychotic-Like Experiences: Background	61	7.7 Social Media Use: Measure.....	84	9.7 Overview & Key Statistics.....	119
1 Background to the Study	15	5.8 Psychotic-Like Experiences: Measure.....	62	7.8 Social Media Use: Prevalence.....	84	9.8 References	120
1.1 Introduction.....	15	5.9 Psychotic-Like Experiences: Prevalence.....	63	7.9 Social Media Use: Deprivation.....	85	10 Help-seeking	122
1.2 A Note on Definitions & the Use of Language	15	5.10 Psychotic-Like Experiences: Deprivation	64	7.10 Social Media Use: Overview & Key Statistics.....	86	10.1 Background.....	122
1.3 Methods	18	5.11 Psychotic-Like Experiences: Overview & Key Statistics.....	64	7.11 Bullying & Cyber Bullying: Background.....	86	10.2 Results: Parent & Child Help-Seeking for Mental Health Problems ..	123
1.4 Ethical Considerations & Ethical Approval.....	22	5.12 Eating Disorders: Background	65	7.12 Bullying & Cyber Bullying: Measures.....	88	10.3 Overview & Key Statistics.....	125
1.5 Measures.....	22	5.13 Eating Disorders: Measure	66	7.13 Bullying & Cyberbullying: Prevalence	88	10.4 References	126
1.6 Participants.....	25	5.14 Eating Disorders: Prevalence	66	7.14 Bullying & Cyberbullying: Deprivation.....	89	11 Conclusion & Next Steps	128
1.7 References	26	5.15 Eating Disorders: Deprivation	67	7.15 Bullying & Cyberbullying: Overview & Key Statistics.....	90	11.1 Conclusion	128
2 Emotional & Behavioural Problems	28	5.16 Eating Disorders: Overview & Key Statistics.....	68	7.16 Alcohol Use: Background	90	11.2 Future plans for analysis.....	134
2.1 Background.....	28	5.17 References	69	7.17 Alcohol Use: Measures.....	92	11.3 Study Limitations.....	134
2.2 Measures.....	30	6 Self-Injury & Suicidal Thoughts or Attempts	72	7.18 Alcohol Use: Prevalence.....	92	11.4 References.....	135
2.3 Emotional & Behavioural Disorders: Prevalence (SDQ).....	31	6.1 Background.....	72	7.19 Alcohol Use: Deprivation.....	93	12 Appendices	136
2.4 Results: Deprivation (SDQ)	33	6.2 Measures.....	73	7.20 Alcohol Use: Overview & Key Statistics.....	94	12.1 Results: Health & Social Care Trust	136
2.5 Oppositional Defiant & Conduct Disorder: Prevalence	34	6.3 Results: Prevalence.....	73	7.21 Tobacco & Recreational Drug Use: Background	94	12.1.1 Emotional & Behavioural Problems	136
2.6 Oppositional Defiant & Conduct Disorder: Deprivation.....	35	6.4 Results: Deprivation.....	74	7.22 Tobacco Use: Measure	95	12.1.2 Anxiety & Mood Disorders	137
2.7 Overview & Key Statistics.....	36	6.5 Overview & Key Statistics.....	75	7.23 Tobacco Use: Prevalence	95	12.1.3 Trauma & Stress-Related Disorders.....	138
2.8 References	38	6.6 References	76	7.24 Tobacco Use: Deprivation.....	96	12.1.4 Young People at risk of other Mental Health Problems	138
3 Common Mood & Anxiety Disorders	40			7.25 Recreational Drug Use: Measures.....	97	12.1.4.2 Psychotic-Like Experiences.....	139
3.1 Background.....	40			7.26 Recreational Drug Use: Prevalence	97	12.1.4.3 Eating Disorders	139
3.2 Measures.....	40			7.27 Recreational Drug Use: Deprivation	98	12.1.5 Self-Injury & Suicide Ideation	140
3.3 Results: Prevalence.....	42			7.28 Overview & Key Statistics.....	99	12.1.7 Social Media Use.....	141
3.4 Results: Deprivation.....	45			7.29 References	100	12.1.8 Bullying & Cyberbullying	141
3.5 Overview & Key Statistics.....	46			8 Parental Mental Health Problems	104	12.1.9 Alcohol Use.....	142
3.6 References	47			8.1 Background.....	104	12.1.10 Smoking.....	142
4 Trauma & Stress-Related Disorders	48			8.2 Measures.....	105	12.1.11 Lifetime Drug Use	143
4.1 Background.....	48			8.3 Results: Deprivation.....	107	12.1.6 Parental Mental Health	143
4.2 Measures.....	49			8.4 Results: Parent & Child Mental Health	108	12.2 Technical Report.....	144
4.3 Results: Prevalence.....	50			8.5 Overview & Key Statistics.....	108	12.3 Questionnaire	144
4.4 Results: Deprivation.....	52			8.6 References	109	12.4 Safeguarding protocol	144
4.5 Overview & Key Statistics.....	53						
4.6 References	54						



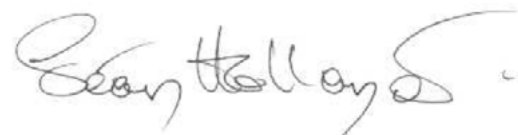
Foreword

The Mental Health of Children & Parents in Northern Ireland Results of Youth Wellbeing Prevalence Survey

Children and young people today live in a world that is vastly different to the one in which many of us grew up in. The influence of social media and the internet, cyber bullying alongside school pressures, particularly regarding exams, have all contributed in no small part to rising levels of anxiety and stress amongst our children and young people. Even before the global pandemic arrived at our shores, the mental health of our young people was a concern, with estimates putting levels on a par with those seen in the adult population of Northern Ireland, roughly 1 in 5. Studies also show that half of adult mental disorders develop before the age of 18 so it is vitally important that we, in Government, ensure that the right services are in place to address and stem emerging mental health needs in young people, particularly with a focus on prevention and early intervention. But planning services based on estimations or population data from other jurisdictions is not ideal; Northern Ireland has its own unique demographic and history and this should inform how we provide services here.

I am pleased that the Department has been instrumental in funding the first prevalence study of children and young people's mental health in Northern Ireland, which also includes parental mental health, through the allocation of Transformation funds to this important project. I would like to put on record my thanks to the Health and Social Care Board, for commissioning the study. I would also like to thank the University of Ulster, Queen's University Belfast, and the Mental Health Foundation for the work they have undertaken over the past 18 months in carrying out the survey and compiling the comprehensive data.

I have no doubt that the findings of the Prevalence Study will be fundamental to the future delivery of CAMHS and mental health policy and service provision in Northern Ireland, particularly as we move to develop a 10 year Strategy for mental health services across the lifespan. This will create a blueprint for services to ensure better mental health outcomes for children, young people and their families in the future.



Sean Holland


Deputy Secretary, Social Services Policy Group

As Director of Social Care and Children at the Health and Social Care Board, I am delighted to present the findings of the Youth Wellbeing Prevalence Survey.

The survey, the first of its kind in Northern Ireland, provides data on more than 3000 children and young people and more than 2,800 parents. The findings will allow policy makers, service delivery agencies and practitioners to have a much greater understanding of the needs of our population.

The funding from the Department of Health enabled what has been a long standing gap for reliable information specific to our local population to be finally addressed. The study provides many valuable key messages which will support the planning and configuration of services across and between agencies. With this better understanding the collective benefits of working together will drive change in ways that will have lasting impact.

I would like to extend my thanks to everyone involved in the study for their expertise, energy and commitment and in particular to the children, young people and their parents and carers for their participation; it is their contribution that keeps their experience and needs central to everything we do.



Marie Roulston

Director of Social Care and Children HSCB

Executive Summary

Background

The planning and commissioning of health and social care services should always proceed on the basis of the best available evidence. There are many forms of relevant evidence but an accurate assessment of the scale and nature of mental health problems in the community is key. The Youth Wellbeing NI Survey provides, for the first time in Northern Ireland, estimates of rates of a range of mental health problems based on a representative sample of children and young people and their parents. Uniquely, it also reports on the first ever prevalence estimates of both post-traumatic stress disorder and complex post-traumatic stress disorder, as well the prevalence of psychotic like experiences, using a general population sample of children and young people.

It will enable in-depth explorations of some of the wider, complex and emerging issues relevant to the mental health of children and young people both in Northern Ireland and internationally. These findings will aid policy makers, service delivery organisations and practitioners in all sectors in the years to come.

Methodology

The Youth Wellbeing NI Survey was carefully designed and conducted to provide comprehensive information on all of the common and some of the less common mental health problems. In order to achieve maximum clarity, the study team has attempted to carefully differentiate between mental health problems, diagnosable mental health conditions, and groups of symptoms which may predict the future emergence of serious mental health conditions. Standardised measures were employed to accurately assess each participant's mental health, and to allow comparison with other populations where possible.

Key Findings

This study provides data on more than 3,000 children and young people in Northern Ireland, and on more than 2,800 parents and caregivers.

Emotional & Behavioural Problems

- One in eight children and young people in Northern Ireland experienced emotional difficulties, one in ten had conduct problems and one in seven problems with hyperactivity.
- Boys aged 5-10 years had higher levels of emotional problems than girls in the same age group (19.3% vs 15.3%) and females aged 16-19 years had higher levels than males (19.7% vs 6.7%).
- When the 20% most deprived areas were compared to the 20% least deprived areas, there were higher overall rates of emotional and behavioural problems (16.5% vs 7.8%), emotional symptoms (18.1% vs 10.6%), conduct problems (13.3% vs 6.0%), hyperactivity (19.6% vs 9.9%) and peer problems (5.1% vs 3.7%).

Oppositional Defiant & Conduct Disorders

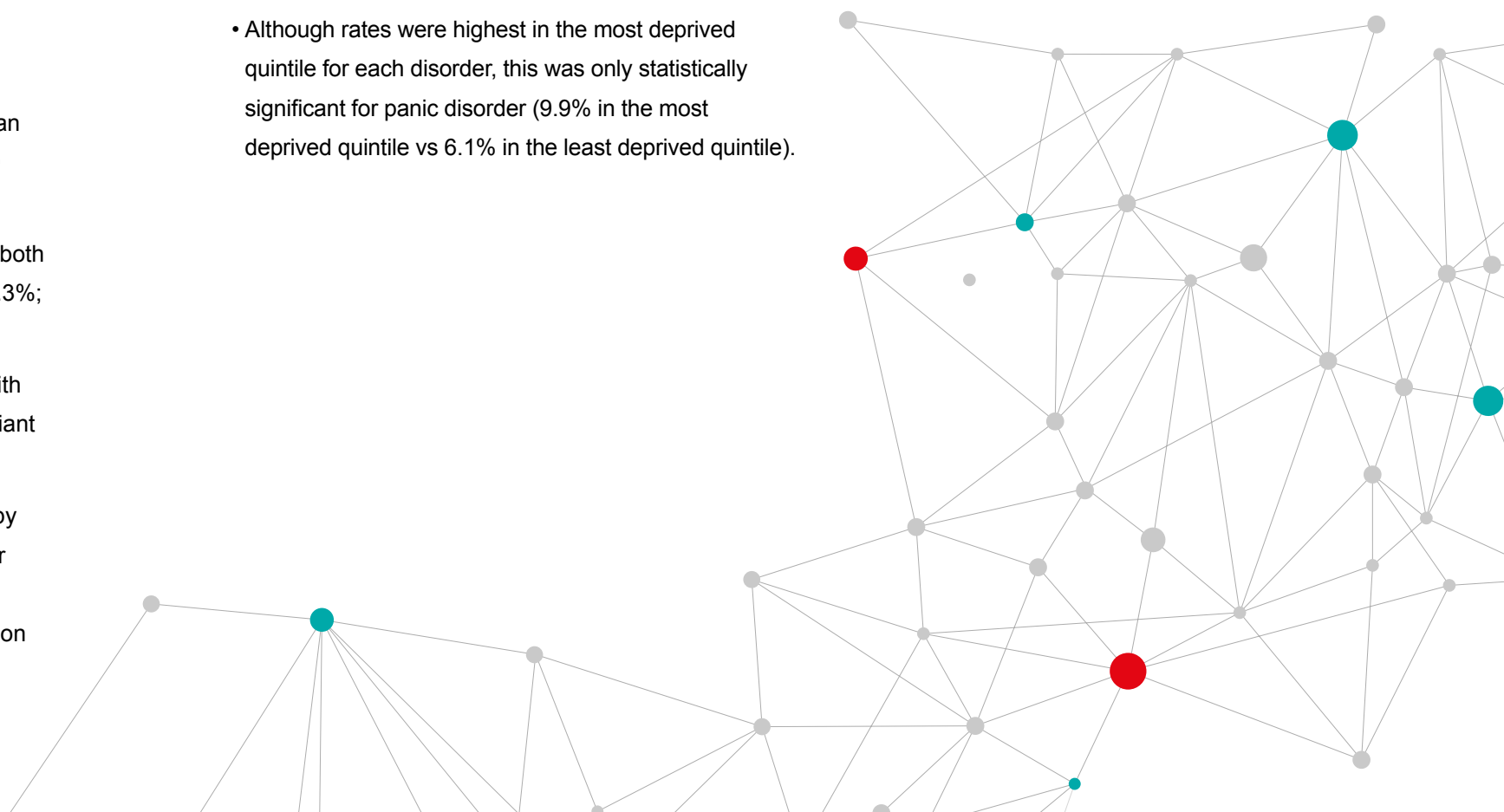
- It is estimated that one in ten young people have an oppositional defiant disorder (9.9%) and one in 20 have a conduct disorder (5.5%).
- Rates were higher for males than females across both disorders (oppositional defiant disorder, 12% vs 7.3%; conduct disorder, 6.9% vs 4.1%).
- Rates of oppositional defiant disorder decrease with age: 11.7% of 5-10 year olds had oppositional defiant disorder compared to 7.3% of 16-19 year olds.
- There were no statistically significant differences by deprivation quintile for lifetime prevalence of either oppositional defiant disorder or conduct disorder, although there was a downward trend as deprivation decreased, particularly in relation to oppositional defiant disorder.

Mood & Anxiety Disorders

- One in eight young people (12.6%) met criteria for any mood or anxiety disorder.
- Rates were similar for boys (12.0%) and girls (13.1%).
- Panic disorder was the most common diagnosis (6.8%), followed by separation anxiety disorder (5.2%), major depressive disorder (5.0%), social phobia (3.8%), obsessive compulsive disorder (3.1%) and generalised anxiety disorder (2.7%).
- Boys aged 5-10 years had significantly higher levels of major depressive disorder (8.5% vs 2.8%), separation anxiety disorder (7.8% vs 4.4%), social anxiety disorder (5.7% vs 3.4%), generalised anxiety disorder (4.3% vs 3.0%), panic disorder (10.4% vs 2.7%) and obsessive compulsive disorder (5.3% vs 1.9%) than girls in the same age group.
- Rates of social anxiety disorder were higher for girls aged 16-19 years compared to boys in the same age group (9.0% vs 3.2%).
- Although rates were highest in the most deprived quintile for each disorder, this was only statistically significant for panic disorder (9.9% in the most deprived quintile vs 6.1% in the least deprived quintile).

Stress Related Disorders

- The most commonly reported traumas by adolescents were witnessing violence (17.0%), having a serious accident (16.8%), and sudden death of a loved one (10.7%).
- The prevalence of any stress related disorder was 4.9%, for Post-Traumatic Stress Disorder (PTSD) it was 1.5%, and for Complex PTSD (CPTSD) it was 3.4%.
- The prevalence of PTSD was higher for males (1.8%) than females (1.1%), whereas the prevalence for CPTSD was higher for females (4.6%) than males (2.3%).
- Experience of sexual trauma and familial violence was strongly associated with CPTSD, while exposure to 'war' and interpersonal violence was associated with PTSD.



Young People at Risk of other Mental Health Problems

Autistic Spectrum Disorders

- 7.7% of children and young people had scores on a screening tool for autism spectrum disorder which suggested that further assessment was indicated.
- Prevalence estimates were significantly higher for males than females (9.2% vs 6.1%).
- Rates were highest for the 11-15 year old age group (16.3% of males; 12.5% of females).
- There was no statistically significant relationship with deprivation and risk of autism, although rates trended downward as deprivation decreased.

Psychotic Disorders

- Nearly one in five (18.7%) adolescents reported six or more symptoms on a screening questionnaire for psychotic like experiences. Although relatively high in Northern Ireland, this was broadly comparable to other international studies, confirming that such experiences are fairly common.
- While only a minority are likely go on to develop a psychotic disorder, psychotic experiences also often act as markers for non-psychotic mental health disorders such as depression and anxiety, suggesting the need for further assessment.
- There were no significant differences by age (19.9% of 11-15 year olds vs 17.5% of 16-19 year olds) or gender (17.2% of males vs 20.3% of females).
- There was no clear relationship with area level deprivation.

Eating Disorders

- One in six young people (16.2%) engaged in a pattern of disordered eating and associated behaviours that might indicate the need for further clinical assessment.
- Females were more likely than males to be at risk of an eating disorder (22.9% vs 10.0%).
- Screening positive on the eating disorder measure was not significantly associated with area-level deprivation.

Self-Injury & Suicidal Thoughts or Attempts

- Almost one in ten (9.4%) 11-19 year olds reported self-injurious behaviour and close to one in eight (12.1%) reporting thinking about or attempting suicide.
- Rates of self-injury (13.2% vs 5.5%) and suicidal thoughts or attempts were higher among girls than boys (14.2% vs 10.0%), with girls aged 16-19 years having the highest rates of suicidal thoughts or attempts of any group (22.7%).
- Screening positive for self-injury, suicidal thoughts or attempts was not significantly associated with area-level deprivation.

Behaviours & Experiences

Adverse Childhood Experiences (ACEs)

- Close to one in two young people aged 11-19 years (47.5%) have experienced at least one ACE: one ACE (33.2%), two ACEs (8.6%) and three or more ACEs (5.7%).
- Parental separation (35.8%), parental mental health problems (10.7%), emotional neglect (5.7%), domestic violence (4.4%) and parental alcohol or substance use problems (4.3%) were the most commonly reported ACEs.
- Females were significantly more likely than males to report 3+ ACEs (7.0% vs 4.6%).
- There was a clear association with deprivation, with young people in the least deprived areas more likely to have experienced no ACEs compared to those in the most deprived (59.9% vs 36.0%).

Social Media Use

- 4.7% of 11-19 year olds in NI met the criteria for a problematic social media use.
- Problematic social media use was more common among males aged 11-15 years (3.3%) than among males aged 16-19 years (2.9%).
- However problematic social media use was more common among older females (6.9%) than among younger females (5.8%).
- Problematic social media use was higher among female children and adolescents in Northern Ireland (5.8-6.9%) than among male children and adolescents (2.9-3.3%).

Bullying and Cyberbullying

- 16.8% of 11-19 year olds have experienced 'traditional' bullying and 14.9% have experienced cyberbullying.
- Rates of 'traditional' bullying were higher for males than females (20.7% vs 13.0%).
- Rates of cyberbullying were higher for females than males (17.9% vs 11.9%).

Use of Tobacco, Alcohol & Drugs

- One in five young people aged 11-19 years have smoked a cigarette (21.5%) and almost one in nine (11.7%) have used cigarettes in the past month, primarily those aged 16-19 years.
- Almost 1 in 5 children aged 11-15 years (19.2%) reported having had an alcoholic drink and, while few young people aged 11-15 years met the criteria for problematic drinking (2.5%), roughly 2 in 5 young people aged 16-19 years (40.9%) did.
- One in ten 11-19 year olds have used drugs with males significantly more likely than females to have done so (7.0% vs 3.1%).
- The most common type of drug used was cannabis (63.8%), followed by cocaine (18.1%) and Ecstasy (16.4%).
- Neither recent tobacco use, problematic drinking or drug use were associated with area-level deprivation, although rates of tobacco use trended downwards as area level deprivation decreased.

Parental Mental Health

- One in five (22%) parents or care-givers reported a previous diagnosis of any mental health disorder. Anxiety and depression were the most commonly diagnosed disorders.
- Parents in the most deprived areas in NI had higher rates of self-reported mental health problems (31.9%) than those in the least deprived areas (17.2%).
- Children whose parents had current mental health problems (as measured by the General Health Questionnaire (GHQ-12)) were twice as likely to have an anxiety or depressive disorder themselves, highlighting the importance of the survey findings for both adult and children's service providers.

Predicting Mental Health Problems

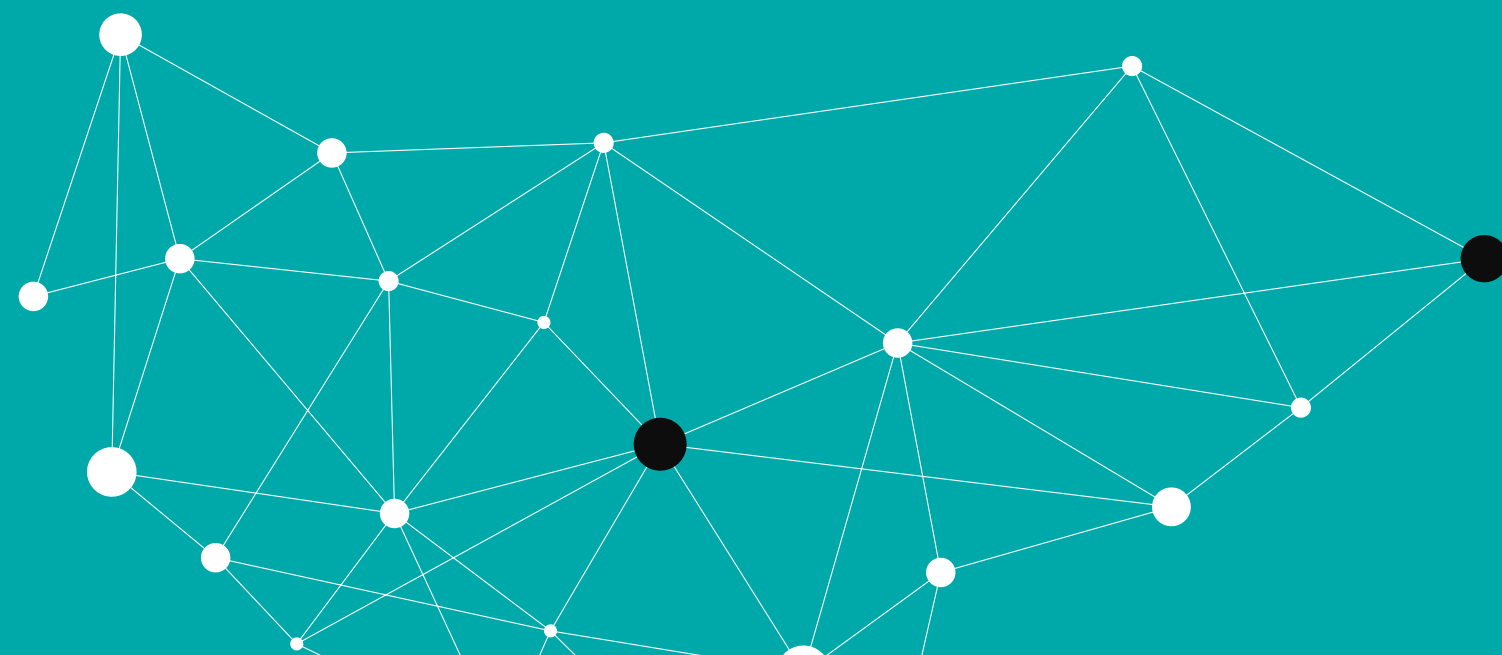
- Having three or more Adverse Childhood Experiences increased the rate of any mood or anxiety disorder by a ratio of 8.
- Young people aged 16-19 years were almost 5 times more likely to have any mood or anxiety disorder than the youngest age group.
- Special educational need related to emotions, behaviour, concentration or getting along with people increased the rate of any mood or anxiety disorder by a ratio of 3.
- Deprivation (as determined by being in receipt of benefits) increased the rate of any mood or anxiety disorder by a ratio of 1.7.
- The presence of parental mental health problems increased the rate of any mood or anxiety disorder by a ratio of 1.4.

Conclusions & Implications of Study Findings

A significant proportion of children and young people in Northern Ireland experience mental health problems, including diagnosable mental health conditions. A 2017 survey of the Mental Health of Children and Young People in England found that one in eight (12.8%) 5-19 year olds had at least one clinically diagnosable mental health disorder, with one in 12 (8.1%) having an emotional disorder such as anxiety or depression and one in 20 (5.5%) having a behavioural or 'conduct' disorder. In the Youth Wellbeing NI Survey, one in eight children and young people (12.6%) had an emotional disorder such as anxiety or depression. Studies of adult populations indicate that Northern Ireland has 25% higher rates of common mental health disorders than England, Scotland and Wales (Bunting, Murphy, O'Neill & Ferry, 2012; McManus, Bebbington, Jenkins, & Brugha, 2016), and, bearing in mind methodological differences, it appears that the picture is similar for young people. Lifetime rates of common behaviour disorders such as oppositional defiant disorder (9.9%) and conduct disorder (5.5%), while not directly comparable with UK research, were in keeping with international estimates.

Young people and their families reasonably expect appropriate services to be available when they develop distressing mental health difficulties. The study findings will help to inform mental health policy and shape the configuration of services. In many cases, intervention from mental health services will not be required and good information and the support of family and friends will be sufficient. Other young people will benefit from increased resources for Child and Adolescent Mental Health Services (CAMHS) and sometimes a combination of forms of support will be needed.

We know that more than 50% of adult mental disorders have their onset before the age of 18 (Kessler et al., 2007). The study has identified links between the wellbeing of children and young people and parental experiences of mental ill-health, and lifestyle and environmental factors, including adverse childhood experiences. Further analysis of the results will provide more detailed information on the causes of mental health difficulties in young people. Societal-wide measures, based on our increased understanding of the pathways to mental health problems, will in the future allow us to usher in a new era of screening, prevention, early intervention, and improvements in the mental health of everyone.



Acknowledgements

We would like to thank all the children, young people and parents who gave willingly of their time to contribute to this important study. We hope that their views and experiences will improve society's understanding of mental health, help tackle stigma around mental health problems and transform the promotion, prevention and treatment of mental health in Northern Ireland and beyond.

Catriona Rooney, Commissioning Lead (CAMHS), NI Health and Social Care Board was instrumental in making this study possible. We are grateful for her vision, commitment and determination. This survey was commissioned and funded by the Social Care Directorate (Children's Services and Think Family NI), Health and Social Care Board. The Project Board, chaired by Martin Quinn, and International Advisory Group have assisted the team from the study's inception and offered their expertise and valued advice at each stage of the project. We would like to thank them for their hard work and contribution to this research.

The professionalism, hard work and dedication from the team at Perceptive Insight met the huge challenge of collecting this valuable data.

We would also like to thank the young people involved in helping to produce the young people's version of the findings – not an easy task! Thanks to Thomas Dean, Ciará Fettes, Pdraig Gribbin, Ellie Knox, Ciara McBratney, Aideen McHugh, Madeleine McKnight, Orlagh Marley, Aoife Murray, and Madalaine Wilson and to NICCY for facilitating.

Recommended citation: Bunting, L., McCartan, C., Davidson, G., Grant, A., McBride, O., Mulholland, C., Murphy, J., Schubotz, D., Cameron, J. & Shevlin, M., (2020). The Mental Health of Children and Parents in Northern Ireland. Belfast: Health & Social Care Board.

Project Team, Project Board, & International Advisory Group

Project Team

Queen's University Belfast

Dr Lisa Bunting
(Principal Investigator)
Senior Lecturer in Social Work

Professor Gavin Davidson
Professor of Social Care

Dr Anne Grant
Lecturer in Mental Health Nursing

Dr Claire McCartan
Research Fellow

Dr Ciaran Mulholland
Clinical Senior Lecturer & Consultant Psychiatrist (Northern Health & Social Care Trust)

Dr Dirk Schubotz
Senior Lecturer in Social Policy

Ulster University

Professor Mark Shevlin
Professor of Psychology

Dr Orla McBride
Reader in Psychology

Professor Jamie Murphy
Professor of Psychology

Mental Health Foundation

Julie Cameron
Associate Director, Scotland & NI

Project Board

Martin Quinn (Chair)
Health & Social Care Board

Catriona Rooney
Health & Social Care Board

Mary Donaghy
Health & Social Care Board

Maurice Leeson
Health & Social Care Board

Anne McGlade
Health & Social Care Board

Karen McWhinney
Northern Health & Social Care Trust

Amy Robinson
Cause NI

Mark Rodgers
Northern Health & Social Care Trust

Nicola Topping
Education Authority NI

Adrian Walsh
Health & Social Care Board

Richard Wilson
Royal College of Psychiatrists

International Advisory Group

Professor John Devaney
Professor of Social Work, University of Edinburgh

Professor Barbara Dooley
Dean of Graduate Studies, Deputy Registrar, University College Dublin

Christine Irvine
Policy & Research Officer, NI Commissioner for Children & Young People

Professor Shanaaz Mathews
Director, Children's Institute, University of Cape Town

Professor Darryl Maybery
Department of Rural & Indigenous Health, Monash University

Professor Jace Pillay
South African Research Chair: Education & Care in Childhood, University of Johannesburg

Professor Andrea Reupert
Department of Educational Psychology & Inclusive Education, Monash University

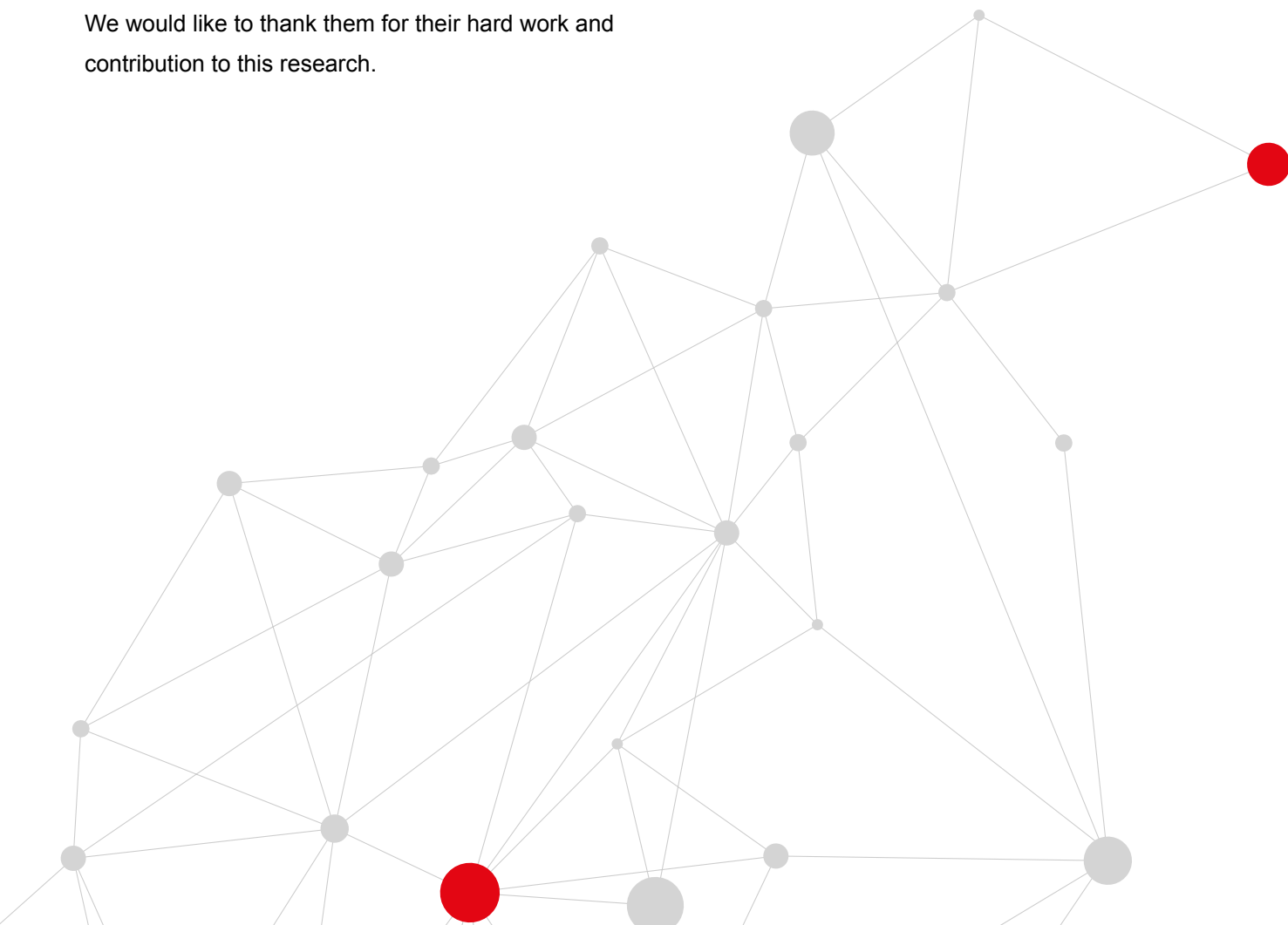
Katharine Sadler
Research Director, Health & Biomedical, NatCen

Dr Ciaran Shannon
Consultant Clinical Psychologist, Northern Health & Social Care Trust

Professor Trevor Spratt
Professor in Childhood Research, Director of Children's Research Centre, Trinity College Dublin

Dr Peter Taylor
Senior Clinical Lecturer, Division of Psychology & Mental Health, University of Manchester

Adam Weston
Young person



1 Background to the Study

1.1 Introduction

Depending on environment and circumstances, up to 20% of young people in Great Britain may experience a clinically defined mental health problem at some point during childhood (Meltzer, Gatward, Goodman, & Ford, 2003). Evidence indicates that the prevalence of mental health problems has risen steadily for over 50 years (Collishaw, Maughan, Goodman, & Pickles, 2004) and more than 50% of adult mental disorders have their onset before the age of 18 (Kessler et al., 2007). More recently, the 2017 survey of the Mental Health of Children and Young People in England (Sadler et al., 2018) found that 1 in 8 (12.8%) 5-19 year olds had at least one clinically diagnosable mental health disorder, 1 in 12 (8.1%) an emotional disorder such as anxiety or depression and 1 in 20 (4.6%), a behavioural or 'conduct' disorder. When compared with previous iterations of the survey, it also identified an upward trend in the prevalence of any disorder among 5-15 year olds, rising from 9.7% in 1999 to 10.1% in 2004, and 11.2% in 2017.

However, to date, there has been no population survey of the mental health problems experienced by children and young people in Northern Ireland (NI). This was noted as a major gap in knowledge in the Bamford Review (2006) of mental health services in Northern Ireland, particularly given "NI is distinguished by higher levels of socio economic deprivation, ongoing civil strife and higher prevalence of psychological morbidity in the adult population. It is likely therefore that the prevalence of mental health problems and disorders in children and young people may be greater in NI than in other parts of the United Kingdom" (Bamford, 2006, p. 5). The recent 'Still Waiting' report from the Northern Ireland Commissioner for Children and Young People identified variations in support available and the need for greater investment and co-ordination across services (Northern Ireland Commissioner for Children & Young People, 2018). This survey delivers epidemiological data on the

prevalence of mental health problems and disorders of more than 3,000 child and young people in Northern Ireland, and data on the mental health and wellbeing of over 2,800 parents.

1.2 A Note on Definitions & the Use of Language

It is important to acknowledge that our understanding of the causes of mental health problems, and of effective interventions, is incomplete and there are, at times, competing and conflicting perspectives on these issues. The approach of the research team for this survey was based on the premise that the different perspectives on mental health (mainly bio-medical, psychological and social) are all important and necessary. Their relative importance may vary between issues and contexts, and all have their strengths and limitations, but any one perspective is insufficient to understand the complexities of the issues involved. This is reflected in the breadth of the data which has been collected and the aim to have a balanced, systemic understanding of the complex issues, although due to the necessity of limiting the length of interviews, especially for children, difficult decisions had to be made about which measures to include.

The language used to describe mental health and mental health problems is also important and potentially contested. Traditionally, discussion of mental health has tended to be negatively framed and has focused primarily on diagnoses although positive definitions of mental health are increasingly identified. The World Health Organisation (WHO) defines mental health as "a state of wellbeing in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community." The Mental Health Foundation (2020b, p. 1) also frames mental health positively by suggesting "Being mentally healthy doesn't just mean that you don't have a mental health problem. If you're in good mental health, you can: make the most of your

potential; cope with life; play a full part in your family, workplace, community and among friends. Some people call mental health 'emotional health' or 'wellbeing' and it's just as important as good physical health." Although the main focus of the survey was on the identification of problems, the data also enable some exploration of positive and protective factors.

There are also a range of definitions of mental health problems variously referred to as mental health issues, difficulties, or illness. These include broad definitions from the Mental Health Foundation and Mind, as well as definitions from the more formal medical diagnostic classifications in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) (American Psychiatric Association, 2013) and the International Classification of Diseases eleventh revision (ICD-11) (World Health Organisation, 2018a).

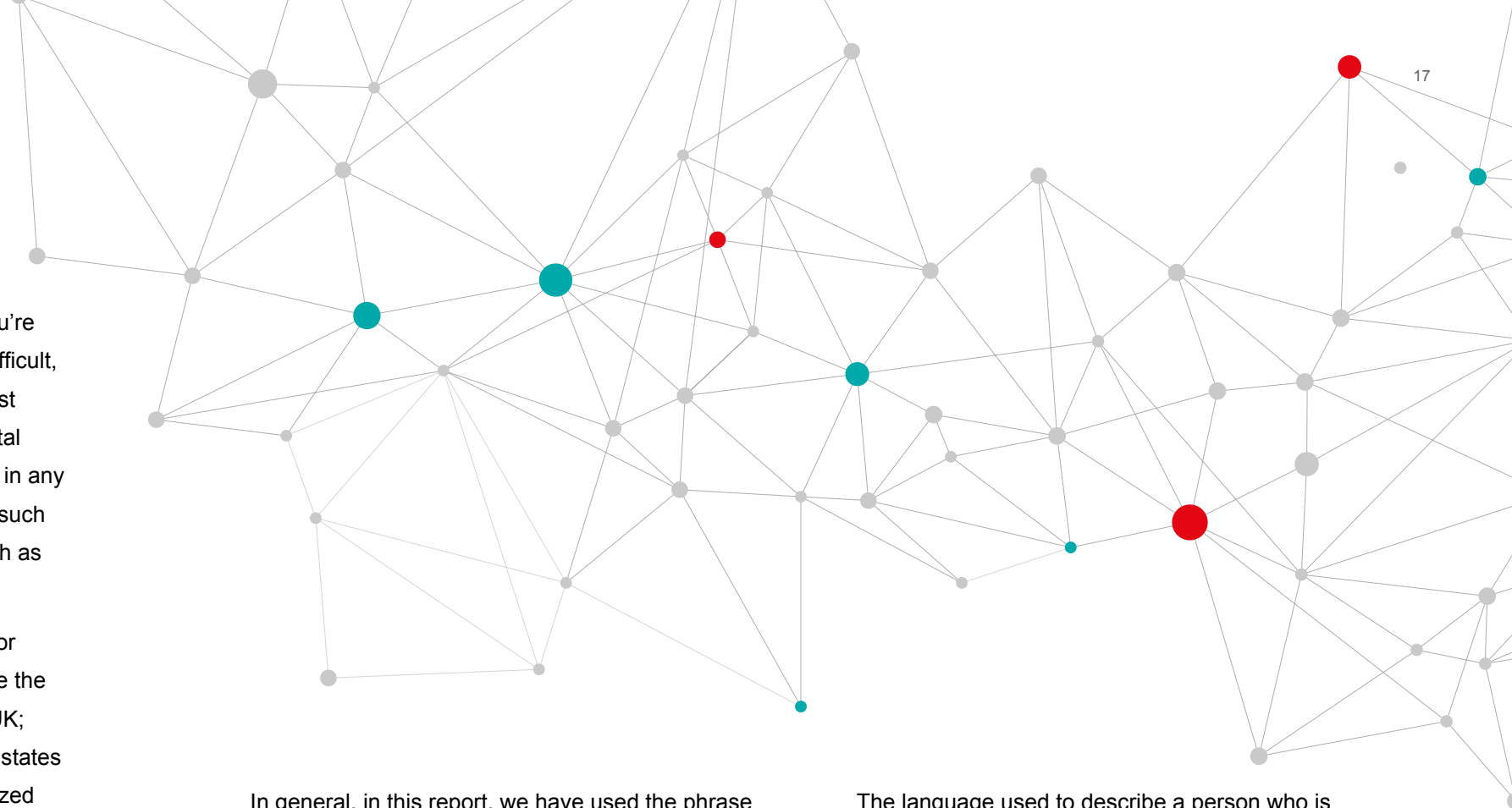
The Mental Health Foundation (2020a, p. 1) provides a broad definition that states "Mental health problems range from the worries we all experience as part of everyday life to serious long-term conditions. The majority of people who experience mental health problems can get over them or learn to live with them, especially if they get help early on. Mental health problems are usually defined and classified to enable professionals to refer people for appropriate care and treatment. But some diagnoses are controversial and there is much concern in the mental health field that people are too often treated according to or described by their label. This can have a profound effect on their quality of life. Nevertheless, diagnoses remain the most usual way of dividing and classifying symptoms into groups."

Mind's (2020, p. 1) definition includes reference to positive mental health as well as specific mental health problems, "Good mental health means being generally able to think, feel and react in the ways that you need and want to live your life. But if you go through a period

of poor mental health you might find the ways you're frequently thinking, feeling or reacting become difficult, or even impossible, to cope with. This can feel just as bad as a physical illness, or even worse. Mental health problems affect around one in four people in any given year. They range from common problems, such as depression and anxiety, to rarer problems such as schizophrenia and bipolar disorder."

The main formal medical classification systems for mental health problems, as mentioned above, are the DSM and the ICD (more commonly used in the UK; version 11 coming into use in 2022). The DSM-5 states that, "A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behaviour (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above." (American Psychiatric Association, 2013).

The ICD-11 definition is similar and states, "Mental, behavioural and neurodevelopmental disorders are syndromes characterised by clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes that underlie mental and behavioural functioning. These disturbances are usually associated with distress or impairment in personal, family, social, educational, occupational, or other important areas of functioning" (World Health Organisation, 2018a).



In general, in this report, we have used the phrase 'mental health problems' to refer to when a person's mental health has a negative impact on their life. 'Mental health problems' necessarily focuses on the negative impact of mental health on a person's ability to function on a daily basis and incorporates a wider spectrum of difficulties than formally diagnosed, specific conditions. This approach is particularly important when considering the mental health of children and young people as there tends to be a more tentative approach to diagnosis to reflect ongoing processes of development and the potential impact of formal diagnosis on emerging identity and the responses of others in this field (O'Connor, Kadianaki, Maunder, & McNicholas, 2018). When referring to a specific, standardised measure, we have used the language of that measure, which again varies between measures. For example the Revised Children's Anxiety and Depression Scale (RCADS) is based on the diagnostic criteria of the DSM-IV (American Psychiatric Association, 2000) which identifies young people at risk of common mood and anxiety disorders, whereas the Strengths and Difficulties Questionnaire (SDQ: Goodman, 1997) is a broad screening questionnaire which identifies children and young people at high risk of emotional and behavioural problems requiring further assessment and additional support.

The language used to describe a person who is experiencing mental health problems and using services is also potentially controversial. The approach adopted in the survey has again tried to strike a balanced approach, reflecting the importance of not defining people solely by their mental health problem(s). For those using services, the language is also evolving and possibilities include patient, client, expert by experience or people with lived experience. In this report we have tended to use the term service user which, although it may not be ideal, does seem to be the most commonly used and accepted term at present (McLaughlin, 2009).

It is also important to define what is meant by prevalence as there are a range of different ways to approach describing the level of mental health problems in a population (Macdonald et al., 2011). In this context, 'prevalence' refers to the overall level of mental health problems among children and young people, and can be measured at one point in time, sometimes referred to as point prevalence or, less commonly, over a specific period of time, such as a year, sometimes referred to as period prevalence (Crichton, 2000). Prevalence is sometimes expressed as a ratio (calculated by dividing the number of people with mental health problems by the number of people in the population) and sometimes as a percentage (the ratio multiplied by 100). "It is important

to distinguish prevalence from incidence, which, in this context, would be the number of children and young people who develop a mental health problem over a particular period of time. Again, incidence is sometimes expressed as a proportion or percentage, calculated by dividing the number of new cases by the population” (Macdonald et al., 2011, p. 25). Another relevant term is epidemiology which is a broader term for the study of the distribution and determinants of health, which includes the consideration of both prevalence and incidence (Sedgwick, 2010). This report provides a wide range of data which can enable informed estimates of prevalence but it should also be acknowledged that these are estimates rather than a definitive rate and there may be variation in prevalence over time.

This report provides estimates for the prevalence of mental health disorders or problems currently experienced by children and young people (that is present over the previous 1-12 months, the exact time frame depending on the measure used). Specifically, it provides prevalence estimates in percentages for the proportion of children and young people at risk of emotional and behaviour disorders requiring further assessment and support, or who are likely to meet established criteria for a common mood or anxiety disorder, post-traumatic stress disorder or complex post-traumatic stress disorder, and the proportion who may meet the criteria for an autism spectrum disorder, an eating disorder, or at risk criteria for a future psychotic illness. Lifetime prevalence estimates for oppositional defiant disorder and conduct disorder, self-injury and suicidal thoughts or attempts are also reported.

Finally, behaviours and experiences that may be associated with mental health and wellbeing including adverse childhood experiences (ACEs), social media use, bullying/cyberbullying, alcohol/drug/tobacco use and the prevalence of parental mental health problems are presented. Results are reported on a Northern Ireland basis, although Health and Social Care (HSCT) level data is provided in Appendix 12.1.

1.3 Methods

1.3.1 Methodology

The Youth Wellbeing NI Survey was undertaken by a consortium comprised of Queen’s University Belfast, Ulster University and the Mental Health Foundation.

The study aims were:

- to collect robust data on the prevalence of mental health problems among 2 to 19 year olds in Northern Ireland;
- to profile children and young people in a number of disorder categories (emotional, conduct, hyperkinetic and autistic spectrum disorders) and, where possible, to assess subgroups within these categories;
- to identify links between youth wellbeing and parental experiences of mental and health, as well as lifestyle and environmental factors, including adverse childhood experiences.

The fieldwork was carried out by Perceptive Insight (www.perceptiveinsight.co.uk) between June 2019 and March 2020. Data were collected using computer-assisted personal interviewing (CAPI) with the majority of information being collected via self-completion questionnaires. As an incentive to encourage participation, the main respondent to the survey was given a £10 shopping voucher on completion.

1.3.2 Sample Design

A large sample was drawn via the postcode register (Pointer database) of all households in Northern Ireland. The most cost-effective way to draw a random sample of eligible households with children and young people in the target age group would have been possible via the Northern Ireland Child Health System or the Child Benefit Register. However, requirements to comply with data protection legislation and ensure the robust and random nature of the sample, meant that it was not possible to

use either of these registers. To assure confidentiality, all households in the sample were assigned a unique six-digit reference number prior to the commencement of fieldwork.

A total of 21,730 addresses were randomly selected and contacted to achieve the target sample (see the Technical Report for further details in Appendix 12.2). The sample of households selected was representative of the population distribution by county according to the Northern Ireland Statistics and Research Agency 2017 Mid-Year Population Estimates. Even distribution across deprivation deciles was also assured. Households without children in the target population were asked to notify the survey team about this to avoid unnecessary travel. Within households with more than one eligible child or young person aged 2-19 years, the child or young person who was next to celebrate their birthday was selected to take part in the study. If that child or young person declined to be interviewed, interviewers were not permitted to substitute this child or young person with another child from that household.

Children and young people aged 11-19 years completed their own survey, whilst parents of children aged 2-10 years completed the survey on behalf of their children. Consent was sought from parents only for surveys of children aged 2-10 years, from both the parent and young person for 11-15 year olds, and from the young person only for 16-19 year olds.

Except for 16-19 year olds living independently, parent questionnaires were also completed. However, if 16-19 year olds living in the parental home did not want their parent or guardian to participate, or the parent or guardian refused to participate, the young person was asked additional demographic questions. In exceptional circumstances where a young person was unable to complete the survey due to a significant diagnosed disability or difficulty (learning, physical or mental health related), then the parent completed a shortened

version of the young person survey on their behalf. In circumstances where a parent or guardian was willing to complete the survey but the selected child or young person was not, no interview took place.

For infants and young children the cognitive demands of reporting information on their own internal emotional state may be too great. As such, there has been a tradition of relying on informant ratings, typically from parents, teachers, carers or others who are familiar with the child. However, it has also been recognised that the correspondence between child self-report and parental rating is rarely perfect, and indeed it has been argued that child-parent discrepancies are ‘the rule’ rather than the exception (Achenbach, 2006). There is no consistent evidence that parents will either systematically over- or under-estimate the quality of their child’s mental health; these discrepancies can be explained by characteristics of the parent, the child, and the phenomenon being assessed (Stokes, Pogge, Wecksell, & Zaccario, 2011). For example, parental levels of stress and anxiety may result in higher ratings of child distress. Characteristics of the child such as age, gender and self-presentation have also been shown to influence parental ratings, and agreement was generally higher for those problems that are manifested in overt behaviours (Romano, Weegar, Babchishin, & Saini, 2018). Overall, there is no way to unequivocally determine who is the ‘best’ or most accurate informant, but it is commonly accepted that parent ratings are more reliable than other informants, and the quality of the measurements is also an important factor (Olino, Finsaas, Dougherty, & Klein, 2018). In this study we used parental ratings for the younger age group (2-10 years) using standardised measurement instruments to maximise reliability and validity.

1.3.3 Making Contact with the Sample

All sampled addresses received an advance letter introducing the study. The letter contained information on the background and purpose of the Youth Wellbeing NI Survey as well as details of how the data would be collected. A telephone number and online link were provided to allow households with no eligible children or young people to inform the project team. A postcard was also included emphasising the importance of making contact if the household was ineligible. Respondents were asked to read an information sheet which outlined how their data would be handled, including how it was collected, analysed and stored.

Experienced interview staff received comprehensive training prior to fieldwork starting, which included briefings from the research team; additional support was available to interviewers during data collection should any concerns or queries arise. Interviewers were equipped with various information materials to hand out to participants, including parent and young person specific versions of a study information sheet. This included a freephone contact number that the household could call for further information, to opt out of participating, to request an appointment or to inform the project team of their ineligibility. Interviewers were instructed to make a minimum of five calls to each address, with calls to be made at different times of the day and different days of the week (excluding Sundays). Interviewers could post 'Sorry I missed you' leaflets through the doors of households when there was no response at the time of calling. Each survey participant was provided with a list of helpline numbers for organisations providing information about mental health and crisis support. The helpline information also encouraged participants to contact their GP if they needed help and advice.

1.3.4 Data Collection

An initial pilot of the questionnaire was undertaken in May 2019 with a small group of respondents covering each of the survey groups used for the study. Following feedback from this initial questionnaire testing, a full pilot took place in June 2019. Fieldwork took place between June 2019 and March 2020.

Alongside a range of demographic questions, the questionnaire combined standardised assessment tools with questions specifically designed for the survey to assess lifestyle and environmental factors. Both parent and child surveys utilised established diagnostic mental health tools. The type of interview or questionnaire used was dependent on the age of the child or young person interviewed. This second pilot enabled testing of the flow, content and timings of the complete interview process, together with the operation of fieldwork procedures.

To reduce the chance of non-response to questions, most of the survey was self-completed by the respondent. Parents were asked not to sit beside the child or young person as they were completing the survey and vice versa, so only the respondent themselves knew how they were answering the questions.

The average interview time (rounded to the nearest minute) was 34 minutes.

Data collection was completed on 20th March 2020, three days before the UK Government announced a lockdown in attempt to suppress the spread of the coronavirus pandemic. COVID-19 has affected many people and the long-term psychological consequences relating to the pandemic is a developing area of international research (González-Sanguino et al., 2020; Jahanshahi, Dinani, Madavani, Li, & Zhang, 2020; Mazza et al., 2020; Qiu et al., 2020; Shevlin et al., 2020). The prevalence estimates included in this report do not include mental health problems relating to COVID-19 including the impact of bereavement, quarantine,

increased levels of stress and anxiety, substance use, financial insecurity, loneliness and isolation, and higher exposure to domestic violence.

1.3.5 Survey Response

In total, 79% of all addresses selected over the survey period were found to be ineligible, leaving 4,621 eligible addresses. The ineligible contacts fell into three main categories: 83% were confirmed as having no child/young person resident at the address; the resident status of 9% of addresses were unconfirmed during the fieldwork; and 7% of addresses were vacant/non-residential or could not be found. Of the 4,621 eligible addresses, 1,492 (32%) were refusals, 55 (1%) were instances where the selected respondent (either parent or young person) was unavailable during the fieldwork period. In total, 3,074 (67% of eligible addresses) parent or young person surveys were completed in relation to the child mental health element of the survey. An

additional 2,815 parent surveys were also completed. Table 1.1 outlines the response rate from the sampled households.

Of the 3,074 child and young person interviews, there were (Table 1.1):

- 1,775 interviews with parents of 2 to 10 year olds;
- 598 interviews with both parent and young people aged 11 to 15 years;
- 327 interviews with parents and young people aged 16 to 19;
- 257 interviews with 16 to 19 year olds (without the parent interview component);
- a number of occasions where young people were unable to complete the survey due to a significant disability (comprising N = 71 11-15 year olds and N = 45 16-19 year olds). In these instances, the parent answered a short questionnaire on their behalf. The

Table 1.1 Response Rates by Age Group for Children and Young People

	All ages		2-10 years		11-15 years		16-19 years	
	N	%	N	%	N	%	N	%
Parent & young person	925	30.1	N/A	NA	598	89.3	327	52.0
Parent only	1891	61.5	1775	100	71	10.6	45	7.2
Young person only	257	8.4	N/A	NA	N/A	NA	257	40.9
Partial interview	1	0.0	0	0	1	0.1	0	0.0
Total	3074	100.0	1775	100	670	100.0	629	100.0

achieved sample met the project team's target sample in terms of stratification by geographic location (county) and multiple deprivation indices. The age profile of participants were within a reasonable range of the 2019 mid-year population estimates (Northern Ireland Statistics and Research Agency, 2020) and on this basis, it was deemed unnecessary to weight the data. As with any household survey, there will be certain groups under-represented in the data but

they typically comprise a very small percentage of the general population. This is likely to include some children and young people who may be at higher risk of mental health problems such as children living away from their parents, for example, in residential care or youth justice centres (Tarren-Sweeney, 2008) and families resident in communal settings such as refuges and hostels (Riley, 2019; Robjant, Hassan, & Katona, 2009).

1.4 Ethical Considerations & Ethical Approval

Ethical approval was granted by the School of Social Sciences, Education and Social Work Research Ethics Committee, Queen's University Belfast in June 2019.

Special care is needed when interviewing participants about sensitive or personal issues that may cause upset or worry or which may relate to potentially sensitive family situations or reveal that a participant may be at risk of harm. Questions included in the survey covered serious mental health issues including self-injury and suicidal behaviours, as well as exposure to a range of traumatic events, including abuse and maltreatment. A clear and transparent protocol was developed to outline the consent process, participant anonymity and confidentiality (and its limitations) and the safeguarding procedures. Each member of the interview team was trained in the safeguarding protocol.

Given that a number of the survey questions had the potential to identify young people at risk, it was essential to strike a balance between offering a safe environment for participants to answer questions honestly and without fear of repercussion, and taking action to safeguard participants where significant risks were identified. Careful consideration was given to the design of the survey and the answers to particularly sensitive questions were entered directly into a computer tablet by the participant so that their responses remained confidential. The data were then 'locked' to prevent the interviewer accessing the information. While it is important to protect the confidentiality of participants wherever possible, there are exceptions to this: namely, where a child, young person or vulnerable adult discloses that they have been harmed or that they are at risk of harm, or the interviewer suspects this is the case (see Appendix 12.4 for the full safeguarding protocol). If a parent or child spoke directly to the interviewer and disclosed something that caused significant concerns about their safety (or someone else's), the interviewers

were advised to consider whether additional support (e.g. from mental health services or social services), beyond the signposting offered in the service information leaflet, was necessary. Both parents and children were made aware of this from the outset that direct verbal disclosure to the interviewer could not always be treated as confidential in the same way that answers entered into the computer tablet could. Interviewers were advised that concerns which arose through verbal disclosure and or actions witnessed by the interviewer should be discussed with the parent or young person and, where necessary, permission sought to pass on the relevant information so that support services could be accessed. They were also advised that in the most serious circumstances, where permission was not given, they might need to pass on information without consent. The General Data Protection Regulations (GDPR) and the Data Protection Act 2018, makes provision for the sharing of information without consent if there is a lawful reason to do so, such as where safety may be at risk. Perceptive Insight's Safeguarding Lead was available to staff at all times during fieldwork. The clinical lead on the research team and Principal Investigator were also available to speak to Perceptive Insight or the fieldwork team should any specific concerns be raised (this happened on one occasion).

1.5 Measures

The following topics and standardised instruments were included in the survey questionnaires (further details about the each of the measures are contained in the relevant results section and a copy of the full survey questionnaire is in Appendix 12.3). These were informed by the measures employed by the recent prevalence survey conducted in England (Sadler et al., 2018), and we also identified opportunities to explore other mental health problems including questions that were relevant to the Northern Ireland context and the experience of trauma.

Table 1.3 Measures

Common Mood & Anxiety Disorders		
Anxiety & Depression	The Revised Child Anxiety & Depression Scale (R-CADS; Chorpita, Yim, Moffitt, Umemoto, & Francis)	2-19 years
Minor psychiatric disorders	General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988)	Parents only
Emotional & Behavioural Problems		
Attention Deficit Hyperactivity Disorder (ADHD) Hyperactivity	Strengths & Difficulties Questionnaire (SDQ; Goodman, 1997)	2-19 years
Conduct Disorder Conduct problems	Autism-Tics, ADHD & Other Comorbidities (A-TAC; Hansson et al., 2005); SDQ	2-19 years
Emotional symptoms (cognitive or somatic representations of psychological distress)	SDQ	2-19 years
Oppositional Defiant Disorder	A-TAC	2-19 years
Peer problems	SDQ	2-19 years
Prosocial behaviour	SDQ	2-19 years
Trauma & Stress-Related Disorders		
Trauma	International Trauma Questionnaire – Child & Adolescent Version (ITQ-CA; Cloitre, Roberts, Bisson, & Brewin, 2018)	11-19 years
Childhood Adversity	Adverse Childhood Experiences (ACEs) Questionnaire; Amended Child & Adolescent Trauma Screen (CATS; Sachser et al., 2017)	11-19 years Parents
Impact of the Troubles	Selected questions from previous surveys	Parents
Impact of Paramilitary groups	Selected questions from previous surveys	Parents
Autistic Spectrum & Developmental Disorders		
Autism traits	Modified Checklist for Autism in Toddlers-Revised (M-CHAT-R; Robins et al., 2014)	2-3 years
	Autism Spectrum Quotient (AQ-10; Allison, Auyeung, & Baron-Cohen, 2012)	4-19 years
Developmental problems	Child Development Review (Ireton, 1990)	2-4 years
Risk of other Mental Health Problems		
Psychotic-Like Experiences	Prodromal Questionnaire (PQ-16; Ising et al., 2012)	11-19 years
Self-injury Suicidal Ideation	Selected questions from the Deliberate Self Harm Inventory (DSHI; Gratz, 2001) & the Suicide Behaviours Questionnaire-Revised (SBQR; Osman, Bagge, Guitierrez, LKonick, & Barrios, 2001)	11-19 years
Eating Disorders	SCOFF Questionnaire (Morgan, Reid, & Lacey, 1999)	11-19 years
Lifestyle & Behaviours		
Bullying & Cyberbullying	Selected questions from previous surveys	11-19 years
Social Media Use	Social Media Disorder Scale (SMD; Van Den Eijnden, Lemmens, & Valkenburg, 2016)	11-19 years
Alcohol Use Drug Use Smoking	Alcohol Use Disorders Identification Test – Consumption Items (AUDIT-C; Bush, Kihlavan, McConell, Fihn, & Bradley, 1998)	11-19 years
	Selected questions from previous surveys	
Resilience		
Resilience	Benevolent Childhood Experiences (BCEs)	11-19 years

A range of background information and demographic data were also collected including:

Table 1.3 Background information & demographics

Demographics
Family structure
Parent educational attainment
Parent employment status
Ethnicity, community background, sexual identity (14-19 years only)
Out-of-home care
Household finances
Home ownership
Household income
Household benefits
Area-level data
Area-level deprivation (Index of Multiple Deprivation 2017) Super Output Area
Health & Social Care Trust, electoral ward, county
Education & school
School type, experiences of school suspension or exclusion
Special educational needs
Health & disability
Physical health problems or conditions, prescribed medication, special educational needs based on: difficulties with speech, language or communication; learning difficulties; or sensory or physical difficulties with vision or hearing or physical ill health
Help-seeking behaviours
Support for mental health

1.6 Participants

The sample was evenly distributed across age and gender (Table 1.2), 51.8% of participants were male.

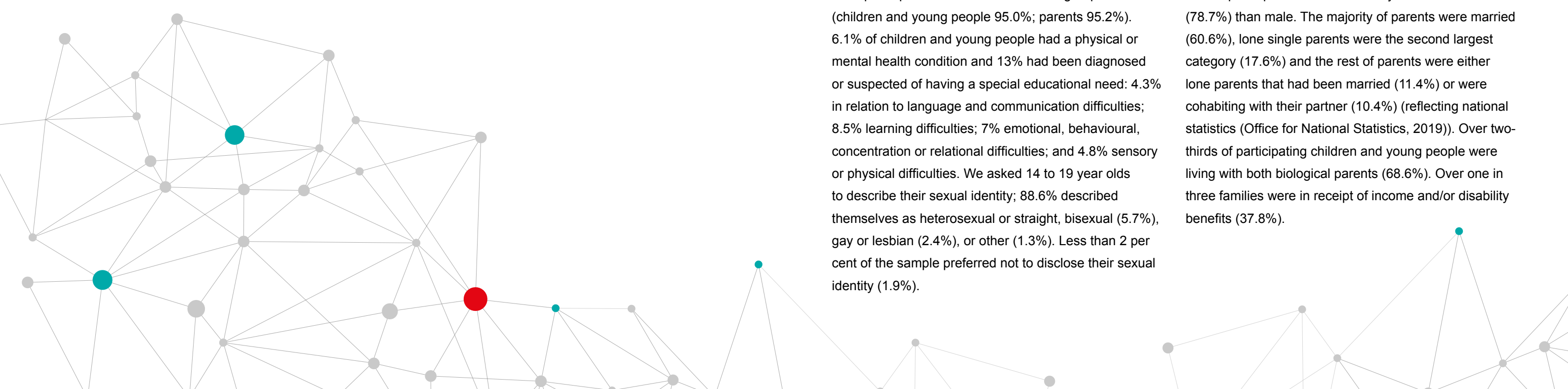
Table 1.2 Breakdown by child age and gender

Age	Male n (% of total sample)	Female n (% of total sample)	Total n (% of total sample)
2	102 (3.3%)	98 (3.2%)	200 (6.5%)
3	124 (4.0%)	114 (3.7%)	238 (7.8%)
4	98 (3.2%)	104 (3.4%)	202 (6.6%)
5	102 (3.3%)	79 (2.6%)	181 (5.9%)
6	108 (3.5%)	100 (3.3%)	208 (6.8%)
7	87 (2.8%)	94 (3.1%)	181 (5.9%)
8	101 (3.3%)	79 (2.6%)	180 (5.9%)
9	105 (3.4%)	99 (3.2%)	204 (6.7%)
10	101 (3.3%)	79 (2.6%)	180 (5.9%)
11	74 (2.4%)	65 (2.1%)	139 (4.5%)
12	66 (2.2%)	65 (2.1%)	131 (4.3%)
13	79 (2.6%)	60 (2.0%)	139 (4.5%)
14	60 (2.0%)	64 (2.1%)	124 (4.0%)
15	71 (2.3%)	65 (2.1%)	136 (4.4%)
16	83 (2.7%)	59 (1.9%)	142 (4.6%)
17	86 (2.8%)	101 (3.3%)	187 (6.1%)
18	70 (2.3%)	80 (2.6%)	150 (4.9%)
19	73 (2.4%)	72 (2.3%)	145 (4.7%)
Total	1590 (51.8%)	1477 (48.2%)	3067*

* missing gender data for 7 participants

Most participants described their ethnic group as White (children and young people 95.0%; parents 95.2%). 6.1% of children and young people had a physical or mental health condition and 13% had been diagnosed or suspected of having a special educational need: 4.3% in relation to language and communication difficulties; 8.5% learning difficulties; 7% emotional, behavioural, concentration or relational difficulties; and 4.8% sensory or physical difficulties. We asked 14 to 19 year olds to describe their sexual identity; 88.6% described themselves as heterosexual or straight, bisexual (5.7%), gay or lesbian (2.4%), or other (1.3%). Less than 2 per cent of the sample preferred not to disclose their sexual identity (1.9%).

Parent participants were more likely to be female (78.7%) than male. The majority of parents were married (60.6%), lone single parents were the second largest category (17.6%) and the rest of parents were either lone parents that had been married (11.4%) or were cohabiting with their partner (10.4%) (reflecting national statistics (Office for National Statistics, 2019)). Over two-thirds of participating children and young people were living with both biological parents (68.6%). Over one in three families were in receipt of income and/or disability benefits (37.8%).



1.7 References

- Achenbach, T. M. (2006). As others see us: Clinical and research implications of cross-informant correlations for psychopathology. *Current Directions in Psychological Science*, 15(2), 94-98.
- Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief “red flags” for autism screening: the short autism spectrum quotient and the short quantitative checklist in 1,000 cases and 3,000 controls. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(2), 202-212. e207.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders, Text Revision (DSM-IV-TR)*. Washington, DC: APA.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, (DSM-5) (5th ed.)*. Arlington, VA: APA.
- Bamford, D. (2006). The Bamford review of mental health and learning disability (Northern Ireland). Retrieved December, 3, 2007.
- Bush, K., Kihlavan, D. R., McConell, M. B., Fihn, S. D., & Bradley, K. A. (1998). The AUDIT alcohol consumption questions (AUDIT-C): An effective brief screening test for problem drinking. *Arch Intern Med*, 158(16), 1789-1795.
- Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. *Behaviour Research & Therapy*, 38(8), 835-855.
- Cloitre, M., Roberts, N. P., Bisson, J. I., & Brewin, C. R. (2018). International trauma questionnaire – child and adolescent version (ITQ-CA).
- Collishaw, S., Maughan, B., Goodman, R., & Pickles, A. (2004). Time trends in adolescent mental health. *Journal of Child Psychology & Psychiatry*, 45(8), 1350-1362. doi:https://doi.org/10.1111/j.1469-7610.2004.00335.x
- Critchton, N. (2000). Prevalence and incidence. *Journal of Clinical Nursing*, 9, 188.
- Goldberg, D. P., & Williams, P. (1988). *A user's guide to the General Health Questionnaire*. Basingstoke NFER-Nelson.
- González-Sanguino, C., Ausín, B., Ángel Castellanos, M., Saiz, J., López-Gómez, A., Ugidos, C., & Muñoz, M. (2020). Mental Health Consequences during the Initial Stage of the 2020 Coronavirus Pandemic (COVID-19) in Spain. *Brain, Behavior, and Immunity*.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of Child Psychology & Psychiatry*, 38(5), 581-586.
- Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the Deliberate Self-Harm Inventory. *Journal of Psychopathology and Behavioral Assessment*, 23(4), 253-263.
- Hansson, S. L., Svanstrom Rojvall, A., Rastam, M., Gillberg, I. C., Gillberg, C., & Anckarsater, H. (2005). Psychiatric telephone interview with parents for screening of childhood autism-tics, attention-deficit hyperactivity disorder and other comorbidities (A-TAC): preliminary reliability and validity. *Br J Psychiatry*, 187(3), 262-267. doi:10.1192/bjp.187.3.262
- Ireton, H. (1990). *Child Development Review—Parent Questionnaire*. Minneapolis, MN: Behavior Science Systems.
- Ising, H. K., Veling, W., Loewy, R. L., Rietveld, M. W., Rietdijk, J., Dragt, S., . . . Linszen, D. H. (2012). The validity of the 16-item version of the Prodromal Questionnaire (PQ-16) to screen for ultra high risk of developing psychosis in the general help-seeking population. *Schizophrenia Bulletin*, 38(6), 1288-1296.
- Jahanshahi, A. A., Dinani, M. M., Madavani, A. N., Li, J., & Zhang, S. X. (2020). The distress of Iranian adults during the Covid-19 pandemic—More distressed than the Chinese and with different predictors. *Brain, Behavior, and Immunity*.
- Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustun, T. B. (2007). Age of onset of mental disorders: a review of recent literature. *Current Opinion in Psychiatry*, 20(4), 359. doi:10.1097/YCO.0b013e32816ebc8c
- Macdonald, G., Livingstone, N., Davidson, G., Sloan, S., Fargas, M., & McSherry, D. (2011). Improving the mental health of Northern Ireland's children and young people: priorities for research. Belfast: Queen's University Belfast, Public Health Agency.
- Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: Immediate psychological responses and associated factors. *International Journal of Environmental Research and Public Health*, 17(9), 3165.
- McLaughlin, H. (2009). What's in a name: 'client', 'patient', 'customer', 'consumer', 'expert by experience', 'service user'-what's next? . *The British Journal of Social Work*, 39(6), 1101-1117.
- Meltzer, H., Gatward, R., Goodman, R., & Ford, T. (2003). Mental health of children and adolescents in Great Britain. *International Review of Psychiatry*, 15(1-2), 185-187.
- Mental Health Foundation. (2020a). What are mental health problems? Retrieved from www.mentalhealth.org.uk/your-mental-health/about-mental-health/what-are-mental-health-problems
- Mental Health Foundation. (2020b). What is mental health? Retrieved from www.mentalhealth.org.uk/your-mental-health/about-mental-health/what-mental-health
- Mind. (2020). What are mental health problems? Retrieved from www.mind.org.uk/information-support/types-of-mental-health-problems/mental-health-problems-introduction/about-mental-health-problems/
- Morgan, J. F., Reid, F., & Lacey, J. H. (1999). The SCOFF questionnaire: assessment of a new screening tool for eating disorders. *Bmj*, 319(7223), 1467-1468.
- Northern Ireland Commissioner for Children & Young People. (2018). Still waiting: a rights based review of mental health services and support for children and young people in Northern Ireland. Belfast: NICCY.
- Northern Ireland Statistics and Research Agency. (2020). 2019 Mid Year Population Estimates for Northern Ireland. Retrieved from <https://www.nisra.gov.uk/publications/2019-mid-year-population-estimates-northern-ireland>
- O'Connor, C., Kadianaki, I., Maunder, K., & McNicholas, F. (2018). How does psychiatric diagnosis affect young people's self-concept and social identity? A systematic review and synthesis of the qualitative literature. *Social Science & Medicine*, 212, 94-119.
- Office for National Statistics. (2019). Families and households in the UK: 2019. Retrieved from <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2019#northern-ireland-had-the-highest-proportion-of-married-or-civil-partner-couples-and-the-lowest-proportion-of-cohabiting-couples-in-2019>
- Olino, T. M., Finsaas, M., Dougherty, L. R., & Klein, D. N. (2018). Is parent-child disagreement on child anxiety explained by differences in measurement properties? An examination of measurement invariance across informants and time. *Frontiers in Psychology*, 9, 1295.
- Osman, A., Bagge, C., Guitierrez, P., LKonick, L., & Barrios, F. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. *Assessment*, 5, 443-454.
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, 33(2).
- Riley, M. (2019). Health needs of a hidden group: child residents of domestic abuse refuges. *British Journal of General Practice*, 69(680), 138-138.
- Robins, D. L., Casagrande, K., Barton, M., Chen, C.-M. A., Dumont-Mathieu, T., & Fein, D. (2014). Validation of the modified checklist for autism in toddlers, revised with follow-up (M-CHAT-R/F). *Pediatrics*, 133(1), 37-45.
- Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: systematic review. *The British Journal of Psychiatry*, 194(4), 306-312.
- Romano, E., Weegar, K., Babchishin, L., & Saini, M. (2018). Cross-informant agreement on mental health outcomes in children with maltreatment histories: A systematic review. *Psychology of Violence*, 8(1), 19.
- Sachser, C., Berliner, L., Holt, T., Jensen, T. K., Jungbluth, N., Risch, E., . . . Goldbeck, L. (2017). International development and psychometric properties of the Child and Adolescent Trauma Screen (CATS). *Journal of Affective Disorders*, 210, 189-195.
- Sadler, K., Vizard, T., Ford, T., Marchesell, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). *Mental health of children and young people in England, 2017*. London: NHS Digital.
- Sedgwick, P. (2010). Prevalence and incidence. *BMJ*, 341, c4709.
- Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., . . . Stocks, T. V. (2020). Anxiety, Depression, Traumatic Stress, and COVID-19 Related Anxiety in the UK General Population During the COVID-19 Pandemic.
- Stokes, J., Pogge, D., Wecksell, B., & Zaccario, M. (2011). Parent-child discrepancies in report of psychopathology: the contributions of response bias and parenting stress. *Journal of Personality Assessment*, 93(5), 527-536.
- Tarren-Sweeney, M. (2008). The mental health of children in out-of-home care. *Current Opinion in Psychiatry*, 21(4), 345-349.
- Van Den Eijnden, R., Lemmens, J. S., & Valkenburg, P. M. (2016). The social media disorder scale. *Computers in Human Behavior*, 61, 478-487.
- World Health Organisation. (2018a). *International Classification of Diseases eleventh revision (ICD 11)*. Geneva: WHO.
- World Health Organisation. (2018b). Mental health: strengthening our response. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response> on 26/08/20

2 Emotional & Behavioural Problems

2.1 Background

Children and young people may experience a diverse range of emotional or behavioural problems. One approach to categorising these was proposed by Achenbach (1966) who suggested that two broad categories existed: 'Internalising' and 'Externalising'. Internalising problems were characterised by somatic problems, worry, withdrawal, fear, sleep problems and anxiety (commonly referred to as emotional problems) and reflect elements of common mental health problems that are present in the current diagnostic system. Externalising problems (commonly referred to as behavioural problems) comprise a diverse range of behaviours that are often specific to certain developmental stages. These include behaviours such as inattention, hyperactivity, impulsivity, defiant, aggressive and criminal behaviour. The onset of behavioural problems tends to occur earlier in childhood than emotional problems (Kessler et al., 2007) and boys are more likely to have behavioural problems, while girls are more likely to experience emotional problems (Hamblin, 2016).

The Strengths and Difficulties Questionnaire (SDQ: Goodman, 1997) is one of the most widely used screening tools for identifying young people at risk of emotional and, or behavioural problems. The SDQ is

a short 25-item screening questionnaire for use with children and young people which provides a total difficulties score, as well as measuring five distinct dimensions: conduct problems; emotional symptoms; hyperactivity; peer problems; and prosocial behaviour. The scores on each dimension can be categorised as 'Low', 'Slightly raised', and 'High'. These categorisations do not represent formal diagnoses, but rather should be interpreted as indications of areas of concern that may require help or further assessment.

The SDQ has been used in numerous UK population surveys (see Table 2.1 for some examples). While results vary depending on the age group surveyed, between 10-20% of children and young people are identified as having total SDQ scores indicative of mental health problems. Between 10-16% are identified as being at risk of emotional problems with girls typically having significantly higher rates than boys. Behaviour problems exhibit greater variation across age groups, with rates ranging from 8 to 19% for conduct problems and 15 to 26% for hyperactivity and are typically significantly higher for boys than girls. There is also evidence of a significant increase in emotional problems in girls (Fink et al., 2015; University of Essex & Institute for Social & Economic Research, 2020), as well a decrease in conduct problems over recent years (University of Essex & Institute for Social & Economic Research, 2020).

While the SDQ identifies children and young people at risk of emotional and behavioural difficulties more broadly, there a number of UK surveys which have attempted to ascertain the prevalence of specific behavioural diagnoses in the child and adolescent population. Behavioural problems comprise a diverse range of behaviours including inattention, hyperactivity, impulsivity, defiant, aggressive or criminal behaviour. Although nearly every child or young person can display some of these behaviours at times, particularly younger children, their qualification and classification as a clinical disorder involves a pattern of disruptive behaviour that lasts for at least 6 months and causes problems in school, at home or in social situations. At a clinical level these involve several diagnoses:

- Oppositional Defiant Disorder (ODD)
- Conduct Disorder
- Attention Deficit Hyperactivity Disorder (ADHD)

Rates for behavioural disorders vary. American population surveys have identified a lifetime prevalence for oppositional defiant disorder of 10.2% in adult populations (Nock, Kazdin, Hiripi, & Kessler, 2007) and 12.6% in adolescent populations, with a further 6.8% of adolescents meeting the criteria for conduct disorder (Merikangas et al., 2010). Meta-analyses based primarily on European and American data indicate that 3.3% of children and young people meet the criteria for oppositional defiant disorder and 3.2% for conduct disorder at any one time (Canino, Polanczyk,

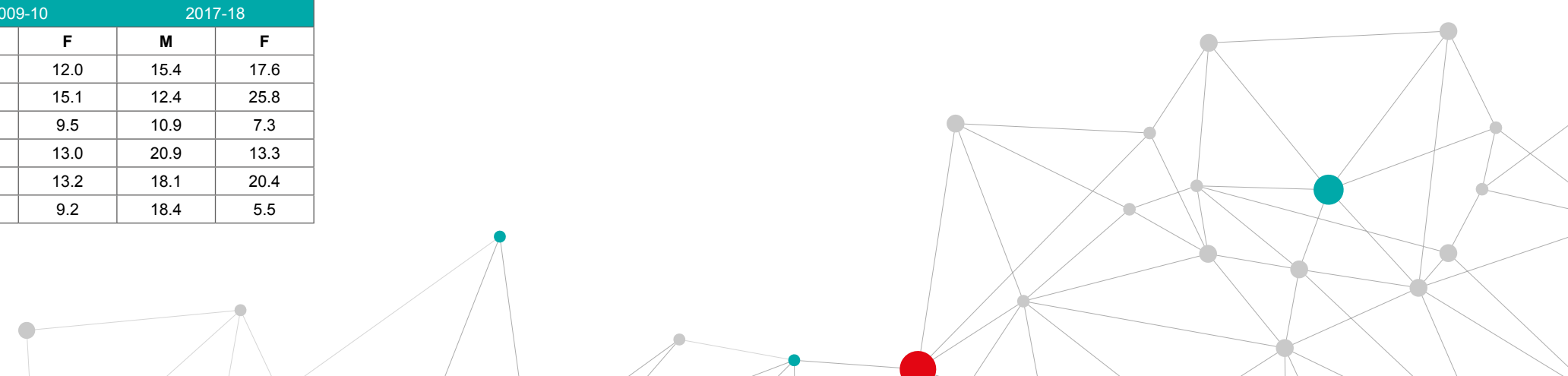
Bauermeister, Rohde, & Frick, 2010). Prevalence do not vary significantly between countries (Canino et al., 2010), although rates have been shown to be significantly higher among poorer communities within countries (Riley, Ahmed, & Locke, 2016).

In the UK, the most recent survey of the Mental Health of Children and Young People (Sadler et al., 2018) found that 1 in 12 (8.1%) 5 to 19 year olds had an emotional disorder and 1 in 20 (4.6%) a behavioural disorder with 2.9% identified as having oppositional defiant disorder and 1.7% having some form of conduct disorder. Additionally, about 1 in 60 (1.6%) 5 to 19 year olds were identified as having a hyperactivity disorder. Rates of emotional disorders were significantly higher amongst girls than boys (10.0% vs 6.2%) and rates of behavioural disorders and hyperactivity disorder significantly higher among boys than girls, 5.8% vs 3.4%, and 2.6% vs 0.6%, respectively. Interestingly, area level deprivation was not associated with increased rates of emotional or behavioural disorders, although being in receipt of benefits was (Davis et al., 2019). As with the findings from surveys using the SDQ, the prevalence of emotional disorders among 5-15 year olds appears to have increased over time (5.6% in 1999, 5.5% in 2004 and 8.1% in 2017) while rates of behavioural disorders have remained broadly stable (6.3% in 1999, 7.4% in 2004 to 6.3% in 2017). Rates of hyperactivity disorders whilst still low have increased from 1999 to 2017 (1.5% in 1999, 1.7% in 2004 and 2.1% in 2017).

Table 2.1 UK Population Survey Results Using the Strengths and Difficulties Questionnaire

SDQ Dimension	5-15 year olds in GB ^a			11-13 year olds in England ^b			10-15 year olds in the UK ^c			
	Total	1999		2009	2009-10		2017-18			
		M	F		M	F	M	F		
Total	9.8	22.8	16.5	17.7	20.4	12.9	12.0	15.4	17.6	
Emotional	11.4	7.4	13.1	6.7	20.3	8.7	15.1	12.4	25.8	
Conduct	12.7	28.4	18.7	24.1	14.5	16.1	9.5	10.9	7.3	
Hyperactivity	14.7	26.0	18.4	29.0	22.6	17.7	13.0	20.9	13.3	
Peer Problems	11.7	18.1	12.6	14.2	10.9	16.2	13.2	18.1	20.4	
Prosocial Behaviour	2.3	30.5	13.2	25.6	11.5	22.2	9.2	18.4	5.5	

a Meltzer et al. (2003);
 b Fink et al. (2015);
 c University of Essex, Institute for Social and Economic Research (2020)



2.2 Measures

In the Youth Wellbeing NI Survey, the SDQ (parent and self-report versions), was used as a broad spectrum measure to identify children and young people at risk of emotional and behavioural problems, as well as those at risk of more specific problems related to conduct and hyperactivity (Table 2.2).

Table 2.2 Description and Sample Items for SDQ Problems

Description	Example SDQ Items
Conduct problems	
Conduct problems represent deviations from commonly accepted age-appropriate behavioural norms. Behavioural problems are disruptive and have the potential to cause harm to self or others. The manifestation of behavioural problems can change from childhood (e.g. temper tantrums or disobedience) through adolescence (e.g. drug taking or unsafe sexual activity).	<ul style="list-style-type: none"> • Often has temper tantrums or hot tempers • Generally obedient, usually does what adults request (reverse scored (R)) • Often fights with other children or bullies them • Often lies or cheats
Emotional symptoms	
Emotional symptoms are cognitive or somatic representations of psychological distress. These symptoms are common across mood and anxiety disorders.	<ul style="list-style-type: none"> • Often complains of headaches, stomachaches or sickness • Many worries, often seems worried • Often unhappy, down-hearted or tearful • Nervous or clingy in new situations, easily loses confidence
Hyperactivity	
Hyperactivity represents marked and persistent inattentiveness, hyperactivity and impulsiveness. Conduct problems and hyperactivity commonly co-occur, and tend to be higher in males.	<ul style="list-style-type: none"> • Restless, overactive, cannot stay still for long • Constantly fidgeting or squirming • Easily distracted, concentration wanders • Thinks things out before acting (R)
Peer problems	
Peer problems are trans-diagnostic and reflect a reluctance, or inability, to form and maintain meaningful social connections with peers. Social isolation and victimisation are common elements of peer problems.	<ul style="list-style-type: none"> • Rather solitary, tends to play alone • Generally liked by other children (R) • Picked on/bullied by other children • Gets on better with adults than with other children
Prosocial behaviour	
Prosocial behaviour represents a 'strength' and is characterised by empathetic feeling and actions such as helping, sharing, and co-operating. In the SDQ it is reverse scored and used to identify children and young people who experience problem relating to others.	<ul style="list-style-type: none"> • Considerate of other people's feelings • Shares readily with other children • Helpful if someone is hurt, upset or feeling ill • Kind to younger children

The "opposition/defiant" subscale of the Autism-Tics, ADHD and other Comorbidities questionnaire (A-TAC; Hansson et al., 2005) was also used to provide additional information on the prevalence of Oppositional Defiant Disorder and Conduct Disorder. Originally a 178-item questionnaire based on the diagnostic criteria from the Diagnostic and Statistical Manual of Mental Disorders, the current version consists of 96 items used for basic screening and identification of proxies to diagnoses, organised in different modules (Larson et al., 2010). The "opposition or defiant" subscale consists of 10 questions, five of which related to Oppositional Defiant Disorder and five which relate to Conduct Disorder. Responses

are categorised as "Yes", "Yes, to some Extent" and "No" with scores of 1, 0.5 and 0, respectively. Cut off scores for a potential diagnosis of Oppositional Defiant Disorder are 3 and 2 for Conduct Disorder (Table 2.3). The Youth Wellbeing NI Survey was used as both a parent report measure (children aged 2-10 years) and a self-report measure (young people aged 11-19 years). It should be noted that the A-TAC is only validated as a parent report measure and, although the questions used are similar to the types of questions to identify conduct disorders through self-report in other measures, their inclusion in the Youth Wellbeing NI Survey is experimental.

Table 2.3 Description and Sample Items for A-TAC Disorders

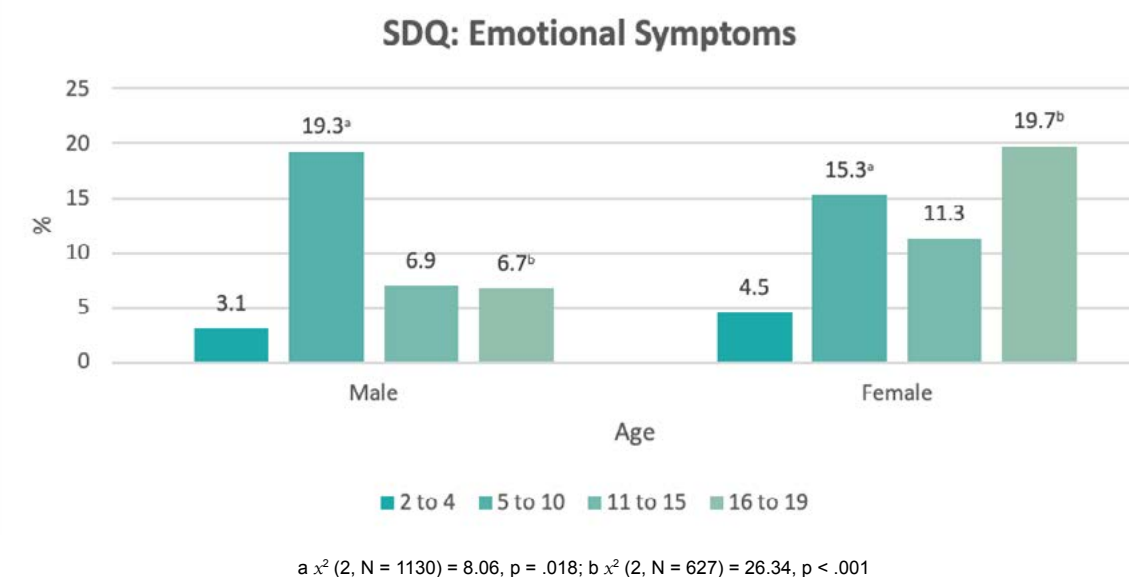
Description	A-TAC Items
Opposition Defiant Disorder	
Opposition defiant disorder is a behavioural disorder characterised by a persistent pattern of anger, irritability, arguing, defiance or vindictiveness towards parents and other authority figures.	<ul style="list-style-type: none"> • so angry he or she could not be reached • often argues with adults • often teases others by deliberately doing things that are perceived as provocative • easily offended, or disturbed by others • easily teased
Conduct disorder is a behavioural disorder characterised by hostile and sometimes physically violent behaviour and a disregard for others.	<ul style="list-style-type: none"> • often lies or cheats? • ever engaged in shoplifting? • ever deliberately been physically cruel to anybody? • often get into fights? • steal things at home or away from home?

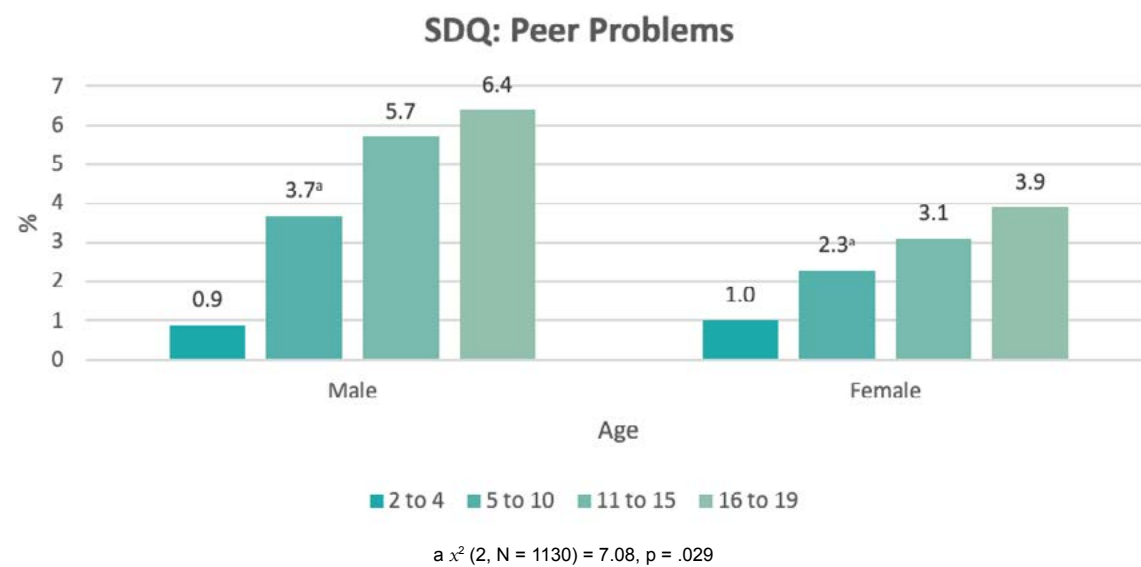
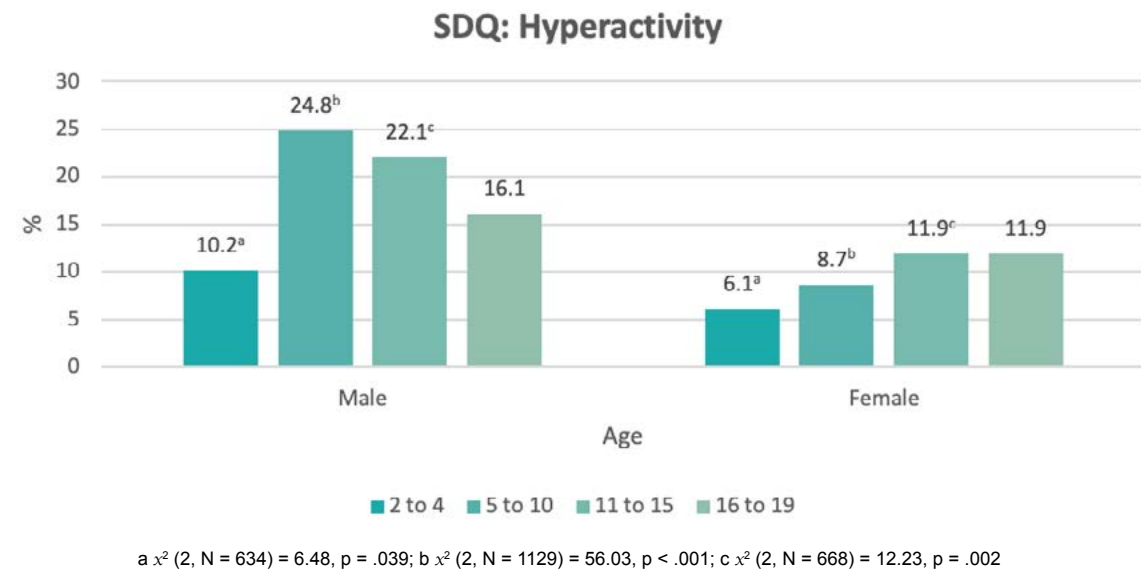
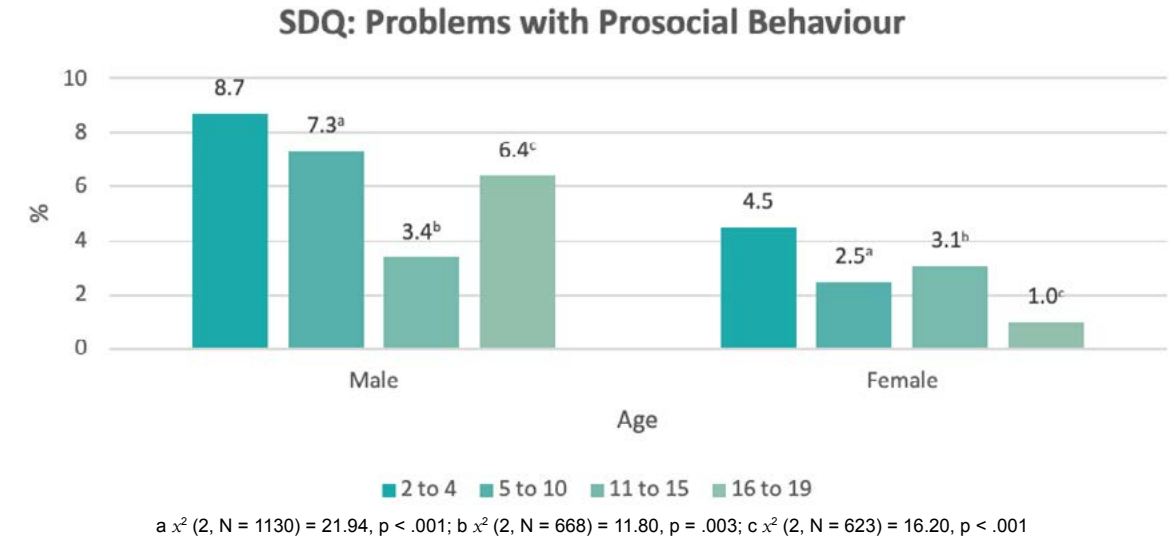
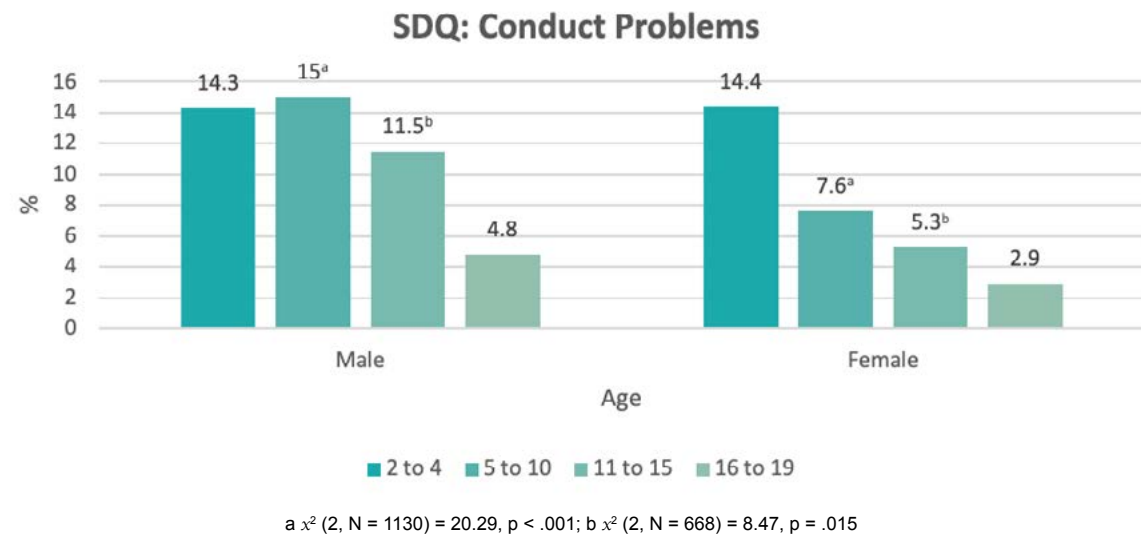
2.3 Emotional & Behavioural Disorders: Prevalence (SDQ)

The overall prevalence estimates for the separate SDQ scales were conduct problems (9.9%), emotional problems (11.9%), hyperactivity (14.7%), peer problems (3.4%) and pro-social behaviour (4.7%). There were significantly more males with high levels of conduct problems ($\chi^2(2) = 21.00, p < .001$), hyperactivity ($\chi^2(2) = 66.97, p < .001$), peer problems ($\chi^2(2) = 6.114, p < .001$) and pro-social problems ($\chi^2(2) = 45.52, p < .001$). The 5-10 years and 16-19 years age groups were

significantly associated with emotional problems ($\chi^2(6) = 100.70, p < .001$) while younger age groups were significantly associated with conduct problems (2-4, 5-10 years: ($\chi^2(6) = 104.36, p < .001$) and pro-social problems (2-4, 5-10 years: ($\chi^2(6) = 21.76, p < .01$). Hyperactivity was significantly associated with the middle age groups (5-10, 11-15 years: ($\chi^2(6) = 38.15, p < .001$) and peer problems with the older age groups (11-15, 16-19 years: ($\chi^2(6) = 154.98, p < .001$). The prevalence rates of SDQ problems by age and gender are shown in Figure 2.1.

Figure 2.1 Prevalence Estimates of SDQ Problems by Age and Gender



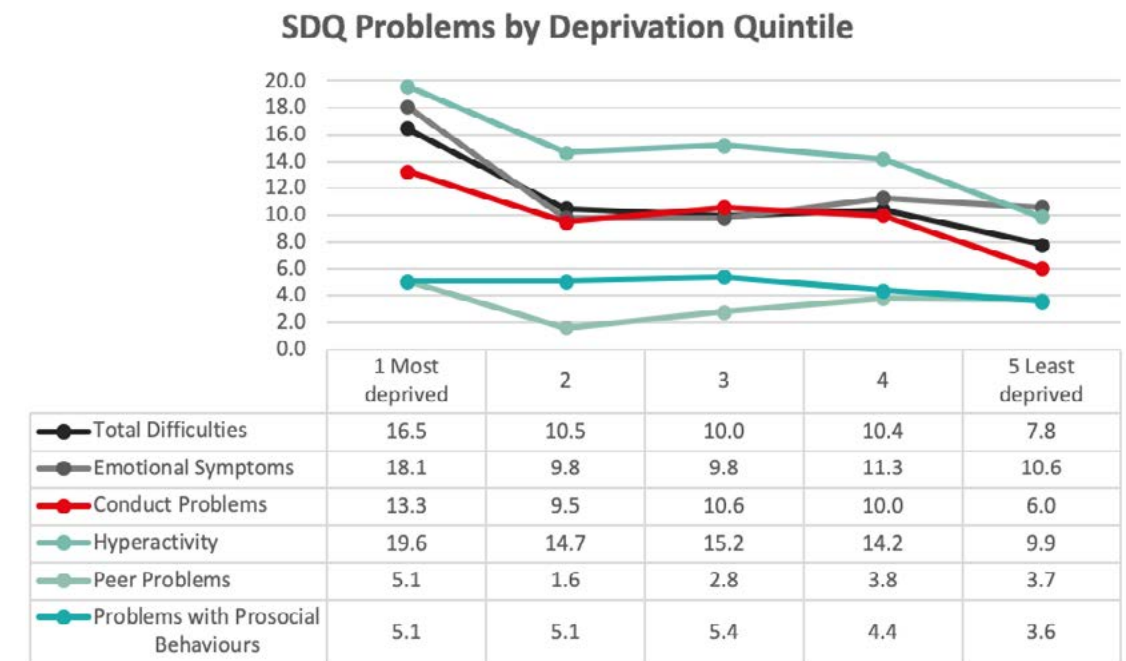


2.4 Results: Deprivation (SDQ)

Deprivation was measured by converting household postcodes into Super Output Area (SOA) level data. The 890 SOAs in Northern Ireland are rank ordered from the most deprived (1) to the least deprived (890) based on the 2017 Northern Ireland Multiple Deprivation Measure (NIMDM; Northern Ireland Statistics and Research Agency). The rankings were split into five equal quintiles

to provide a measure of area-level deprivation. Figure 2.2 shows the distribution of the prevalence of the different SDQ problems across deprivation quintiles. Rates of total difficulties (16.5% vs 7.8%), emotional symptoms (18.1% vs 10.6%), conduct problems (13.3% vs 6.0%), hyperactivity (19.6% vs 9.9%) and peer problems (5.1% vs 3.7%) were higher in the most deprived quintile compared to the least deprived.

Figure 2.2 SDQ Problems by Deprivation Quintile



Total Difficulties χ^2 (8, N = 3057) = 36.00, p < .001; Emotional Symptoms χ^2 (8, N = 3061) = 31.35, p < .001; Conduct Problems χ^2 (8, N = 3060) = 28.36, p < .001; Hyperactivity χ^2 (8, N = 3059) = 28.69, p < .001; Peer Problems χ^2 (8, N = 3059) = 18.91, p = .015

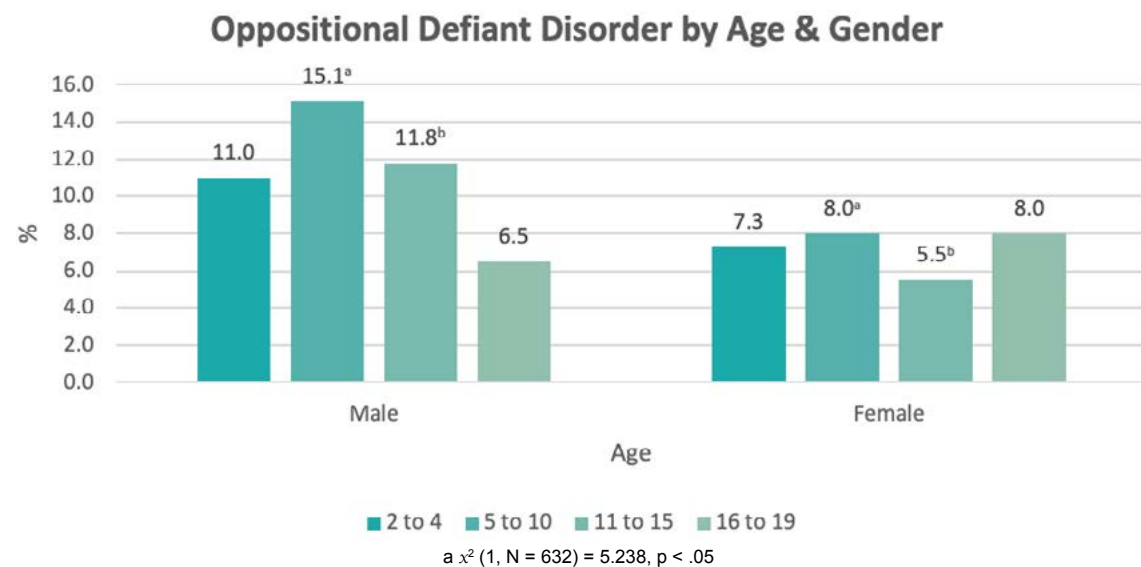
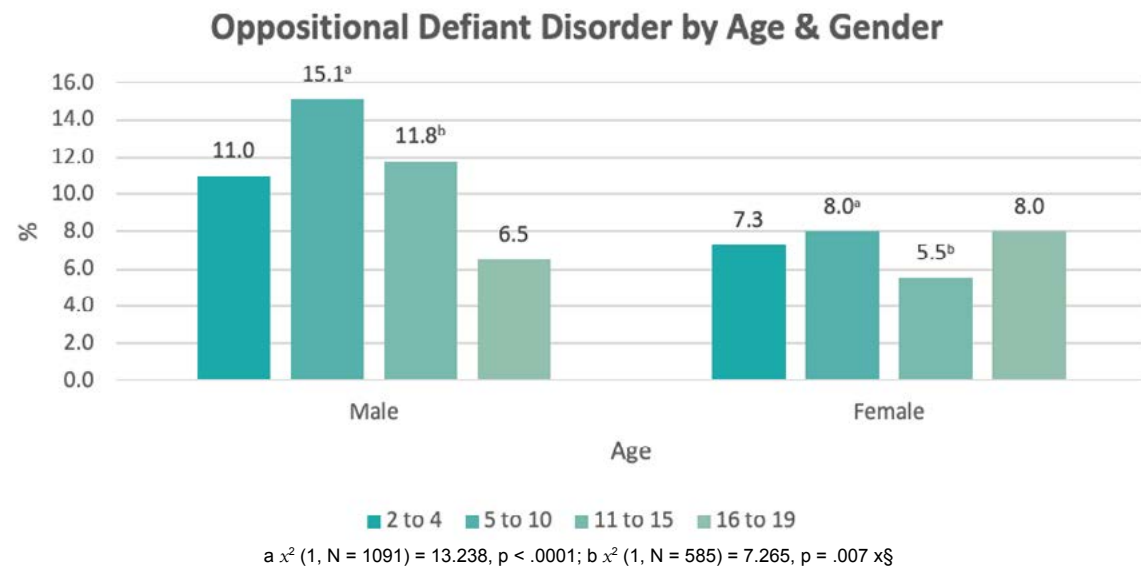
2.5 Oppositional Defiant & Conduct Disorder: Prevalence

Based on the A-TAC, prevalence rates for Oppositional Defiant Disorder were 9.9% and 5.5% for Conduct Disorder. There were significantly more males than females with Oppositional Defiant Disorder (12% vs 7.3%: $\chi^2(1) = 10.270$, $p = .001$), and Conduct Disorder (6.9% vs 4.1%: $\chi^2(1) = 17.602$, $p < .001$).

There were significant differences by age with the 5-10 years age group having the highest levels of Oppositional Defiant Disorder and the 16-19 years age group the lowest (11.7% vs 7.3%: $\chi^2(3) = 9.730$, $p = .021$). There were no significant age differences in relation to Conduct Disorder. The prevalence rates of Oppositional Defiant Disorder and Conduct Disorder by age and gender are shown in Figure 2.3.

Figure 2.3 Prevalence Estimates of Oppositional Defiant Disorder and Conduct Disorder

Figure 2.3 Prevalence Estimates of Oppositional Defiant Disorder and Conduct Disorder by Age and Gender

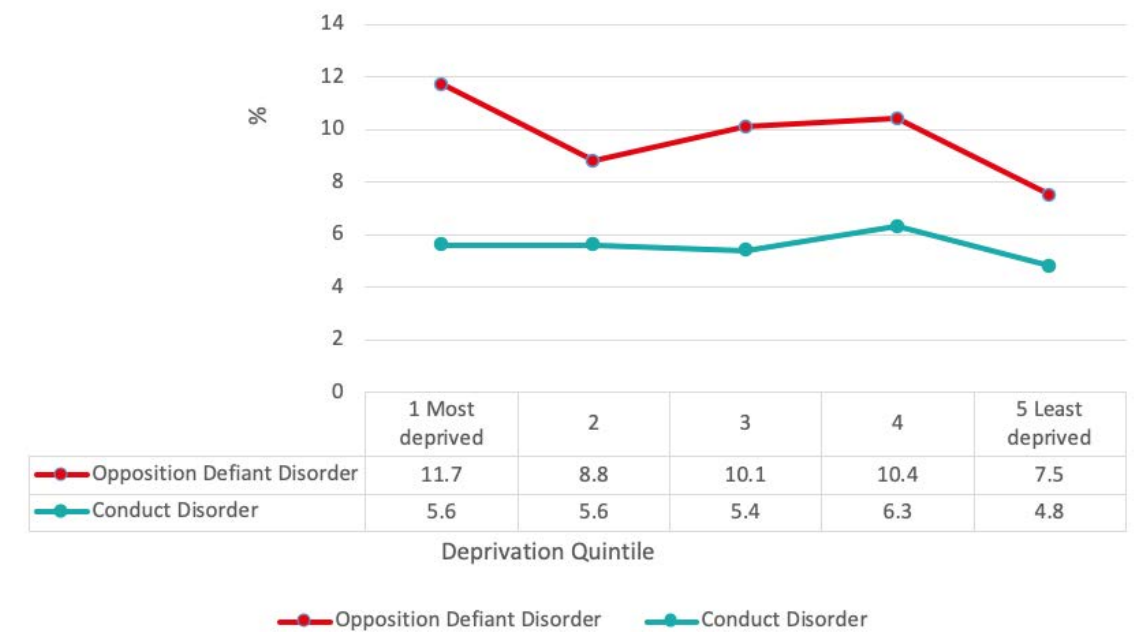


2.6 Oppositional Defiant & Conduct Disorder: Deprivation

There was no significant association between deprivation and lifetime prevalence of oppositional defiant disorder or conduct disorder (Figure 2.4).

Figure 2.2 SDQ Problems by Deprivation Quintile

Oppositional Defiant Disorder & Conduct Disorder by Deprivation Quintile



2.7 Overview & Key Statistics

Overall, the findings indicate that approximately 1 in 8 children and young people in Northern Ireland experience emotional difficulties, 1 in 10 experience conduct problems and 1 in 7, problems with hyperactivity. These prevalence estimates are broadly in keeping with findings from other UK surveys which have used the SDQ (Fink et al., 2015; University of Essex & Institute for Social & Economic Research, 2020), although it is notable that problems with peers and prosocial behaviour were substantially lower in NI than those identified in recent UK surveys. Also, in keeping with previous research (Hamblin, 2016), rates of behavioural problems were higher among males and, although there was no overall difference between males and females in relation to emotional problems, there were considerable variations within age or gender categories with significantly higher rates of emotional problems among females aged 16-19 years compared to males. However, the higher rate of emotional problems among males aged 5-10 years compared to females (19.3% vs 15.3%), as well as the high overall rate within this age group, differs from other UK findings (Sadler et al., 2018), highlighting this as a potentially important area for further study and service development. Prevalence estimates of emotional symptoms (18.1% vs 10.6%), conduct problems (13.3% vs 6.0%) and hyperactivity (19.6% vs 9.9%) were all higher in the 20% most deprived areas compared to the 20% least deprived.

Lifetime estimates of oppositional defiant disorder were 9.9% and 5.5% for conduct disorder, a finding in keeping with international research that indicates that approximately 1 in 8 children meet diagnostic criteria for Oppositional Defiant Disorder, and 1 in 16 for conduct disorder (Merikangas et al., 2010). Also in line with previous research, rates were higher among boys than girls (Oppositional Defiant Disorder, 12% vs 7.3%; Conduct Disorder, 6.9% vs 4.1%), although there were no significant differences by levels of deprivation. Similarly, the Mental Health of Children and Young People in England survey (Davis et al., 2019) did not find an association between area level deprivation and increased rates of behavioural disorders, although individual level socio-economic factors such as receipt of benefits were associated. It may be that similar associations emerge through further analyses planned for the Youth Wellbeing NI Survey.

- The overall prevalence estimates for emotional and behavioural problems were: emotional problems (11.9%); conduct problems (9.9%); hyperactivity (14.7%); peer problems (3.4%); and pro-social behaviour (4.7%).
- Males had higher levels of conduct (12.1% vs 7.5%), hyperactivity (19.5% vs. 9.5%), peer problems (4.1% vs 2.5%) and problems with pro-social behaviour (6.6% vs 2.7%) than females.
- While there were no overall gender differences for emotional problems, males age 5-10 years had higher levels of emotional problems than females in the same age group (19.3% vs 15.3) and females aged 16-19 years had higher levels than males (19.7% vs. 6.7%).
- Younger age groups (2-4, 5-10 years) had higher levels of conduct problems (2-4 years = 14.3%; 5-10 years = 11.5%; 11-15 years 8.5%; 16-19 years = 3.8%) and pro-social problems (2-4 years = 6.6%; 5-10 years = 5.0%, 11-15 years = 3.3%; 16-19 years = 3.7%) than older age groups.
- The 5-10 years and 16-19 years age groups had significantly higher rates of emotional problems (2-4 years = 3.8%; 5-10 years = 17.4%; 11-15 years = 9.0%; 16-19 years = 13.2%).
- Middle age groups (5-10 years, 11-15 years) had higher levels of hyperactivity (2-4 years = 8.2%; 5-10 years = 17.3%, 11-15 years = 17.2%; 16-19 years = 14.1%) and the older age groups had higher levels of peer problems (2-4 years = 0.9%; 5-10 years = 3.0%, 11-15 years = 4.5%; 16-19 years = 5.4%).
- Rates of total difficulties (16.5% vs 7.8%), emotional symptoms (18.1% vs 10.6%), conduct problems (13.3% vs 6.0%), hyperactivity (19.6% vs 9.9%) and peer problems (5.1% vs 3.7%) were higher in the most deprived quintile compared to the least deprived.
- Lifetime prevalence rates for oppositional defiant disorder were 9.9% and 5.5% for conduct disorder and rates were higher for males than females across both disorders (oppositional defiant disorder, 12% vs 7.3%; conduct disorder, 6.9% vs 4.1%).
- 5-10 year olds had the highest levels of oppositional defiant disorder and the 16-19 years age group the lowest (11.7% vs 7.3%).
- There were no statistically significant differences by area deprivation quintile for lifetime prevalence of either oppositional defiant disorder or conduct disorder, although there was a downward trend as deprivation decreased, particularly in relation to oppositional defiant disorder.



2.8 References

Achenbach, T. M. (1966). The classification of children's psychiatric symptoms: a factor-analytic study. *Psychological Monographs: General & Applied*, 80(7), 1.

Canino, G., Polanczyk, G., Bauermeister, J. J., Rohde, L. A., & Frick, P. J. (2010). Does the prevalence of CD and ODD vary across cultures? *Social Psychiatry and Psychiatric Epidemiology*, 45(7), 695-704.

Davis, J., Vizard, T., Forbes, N., Pearce, N., Nafilyan, V., Merad, S., . . . Goodman, A. (2019). Mental health of children and young people in England, 2017: Predictors of mental disorders. London: NHS Digital.

Fink, E., Patalay, P., Sharpe, H., Holley, S., Deighton, J., & Wolpert, M. (2015). Mental health difficulties in early adolescence: a comparison of two cross-sectional studies in England from 2009 to 2014. *Journal of Adolescent Health*, 56(5), 502-507.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of Child Psychology & Psychiatry*, 38(5), 581-586.

Hamblin, E. (2016). Gender and children and young people's emotional and mental health: manifestations and responses: A rapid review of the evidence. *National Children's Bureau*, 20-22.

Hansson, S. L., Svanstrom Rojvall, A., Rastam, M., Gillberg, I. C., Gillberg, C., & Anckarsater, H. (2005). Psychiatric telephone interview with parents for screening of childhood autism-tics, attention-deficit hyperactivity disorder and other comorbidities (A-TAC): preliminary reliability and validity. *Br J Psychiatry*, 187(3), 262-267. doi:10.1192/bjp.187.3.262

Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustun, T. B. (2007). Age of onset of mental disorders: a review of recent literature. *Current Opinion in Psychiatry*, 20(4), 359. doi:10.1097/YCO.0b013e32816ebc8c

Larson, T., Anckarsäter, H., Gillberg, C., Ståhlberg, O., Carlström, E., Kadesjö, B., . . . Gillberg, C. (2010). The autism-tics, AD/HD and other comorbidities inventory (A-TAC): further validation of a telephone interview for epidemiological research. *BMC Psychiatry*, 10(1), 1.

Meltzer, H., Gatward, R., Goodman, R., & Ford, T. (2003). Mental health of children and adolescents in Great Britain. *International Review of Psychiatry*, 15(1-2), 185-187.

Merikangas, K. R., He, J.-p., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., . . . Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980-989.

Nock, M. K., Kazdin, A. E., Hiripi, E., & Kessler, R. C. (2007). Lifetime prevalence, correlates, and persistence of oppositional defiant disorder: results from the National Comorbidity Survey Replication. *Journal of Child Psychology and Psychiatry*, 48(7), 703-713.

Northern Ireland Statistics and Research Agency. (2017). Northern Ireland Multiple Deprivation Measure. Retrieved from <https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017>

Riley, M., Ahmed, S., & Locke, A. (2016). Common questions about oppositional defiant disorder. *American family physician*, 93(7), 586-591.

Sadler, K., Vizard, T., Ford, T., Marchesell, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). Mental health of children and young people in England, 2017. London: NHS Digital.

University of Essex, & Institute for Social & Economic Research. (2020). *Understanding Society: Waves 1-9, 2009-2018 and Harmonised BHPS: Waves 1-18, 1991-2009*. [data collection]. Retrieved from <http://doi.org/10.5255/UKDA-SN-6614-13>



3 Common Mood & Anxiety Disorders

3.1 Background

Most common mental health problems can be classified as mood or anxiety disorders. Mood disorders are characterised primarily by low mood (feeling sad or empty) or diminished interest and pleasure in normal activities or hobbies. Often other symptoms occur such as difficulty concentrating, feelings of worthlessness, feeling guilty, hopelessness, disturbed sleep, fatigue, and thoughts of death or suicide. Anxiety disorders are characterised primarily by feeling nervous, apprehensive, and excessive worry and these are often accompanied by feelings of restlessness, irritability, and a sense of foreboding. Findings from the Mental Health of Children and Young People in England Survey in 2017 showed that 8.1% of 5 to 19 year olds met the criteria for a mood or anxiety disorder, with the rate being higher for girls (10.0%) than boys (6.2%) (Sadler et al., 2018). Overall, anxiety disorders were more common than mood disorders, and the prevalence increased with age.

Similar prevalence rates have been reported in other national studies. In Australia, the second Child and Adolescent Survey of Mental Health and Wellbeing presented a 12-month prevalence rate of 6.9% in 4 to 17 year olds for anxiety disorders and 2.8% for a depressive disorder (Lawrence et al., 2016). Mental disorders were more common in step-, blended- or single parent families, in families living in rented accommodation and in families where one or both carers were unemployed. Mental disorders were also associated with a substantial number of days absent from school, particularly in adolescents. Secondary analysis of data from the 2016

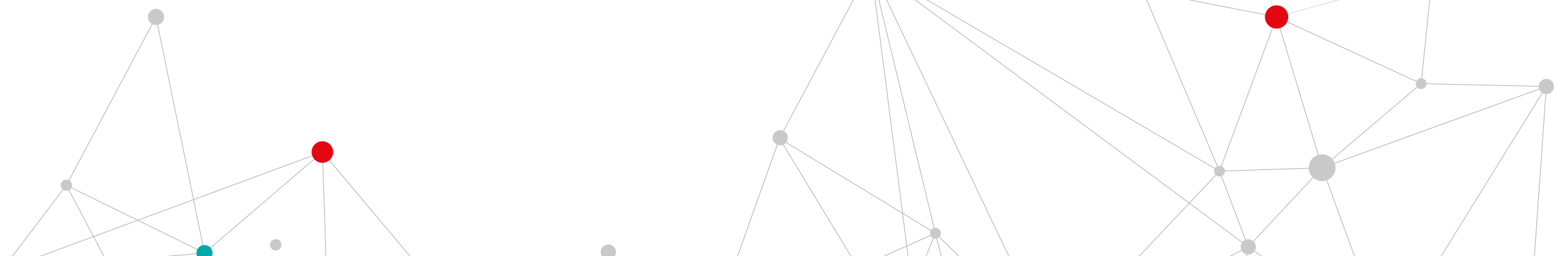
US National Survey of Children’s Health showed among children aged 3 to 17 years, 7.1% had anxiety problems and 3.2% had depression (Ghandour et al., 2019). Higher prevalence was associated with older age, poorer child health or caregiver mental health. The Growing Up in Ireland cohort study reports similar rates, with 1 in 10 17-18 year olds diagnosed with depression, anxiety or both (Growing up in Ireland, 2016). Having a higher depressive score at age 13 was associated with a greater chance of having a diagnosis of depression or anxiety by age 17-18. Girls have been consistently identified as having higher rates of mood and anxiety disorders and there is evidence that the increase child and adolescent mental health problems is primarily because of increasing levels of emotional disorders among girls (Fink et al., 2015; Hamblin, 2016).

3.2 Measures

The mood and anxiety disorders assessed in this study were major depressive disorder, separation anxiety disorder, social phobia, generalised anxiety disorder, panic disorder, and obsessive compulsive disorder using the Revised Children’s Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). The RCADS is a 47-item questionnaire, that can be self- or parent completed, and produces indications of clinically relevant levels of severity of the six disorders derived from the diagnostic criteria of the DSM-IV (American Psychiatric Association, 2000). A description of these different disorders, and how the RCADS measures them, is presented in Table 3.1.

Table 3.1 Description and Sample Items for RCADS Disorders

Disorder	
Description	Example RCADS Items
Major depressive disorder	
Depressed mood or loss of interest or pleasure in life activities and symptoms that cause clinically significant impairment in social, work, or other important areas of functioning almost every day.	<ul style="list-style-type: none"> • Has no energy for things • Feels sad or empty • Feels worthless • Feels nothing is much fun anymore
Separation anxiety disorder	
Developmentally inappropriate and excessive anxiety concerning separation from home or from those to whom the individual is attached.	<ul style="list-style-type: none"> • Scared to sleep alone • Fears being away from parents • Scared to sleep away from home • Fears being alone at home
Social phobia disorder	
A marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way that will be humiliating or embarrassing.	<ul style="list-style-type: none"> • Afraid of looking foolish in front of people • Worries might look foolish • Worries what others think • Afraid to talk in front of class
Generalised anxiety disorder	
Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities.	<ul style="list-style-type: none"> • Worries something bad will happen • Thinks about death • Worries something awful will happen to family • Worries about things
Panic disorder	
Experience of panic attacks (discrete period of intense fear or discomfort which develops abruptly) and a concern about additional attacks, along with worry about the implications of the attack or its consequences.	<ul style="list-style-type: none"> • Heart suddenly beats too quickly for no reason • Suddenly trembles or shakes for no reason • Suddenly feels really scared for no reason • Suddenly has trouble breathing for no reason
Obsessive compulsive disorder	
Recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress.	<ul style="list-style-type: none"> • Has to do things over and over again • Has to do things just right to stop bad events • Keeps checking if things are done right • Has to think special thoughts to stop bad events

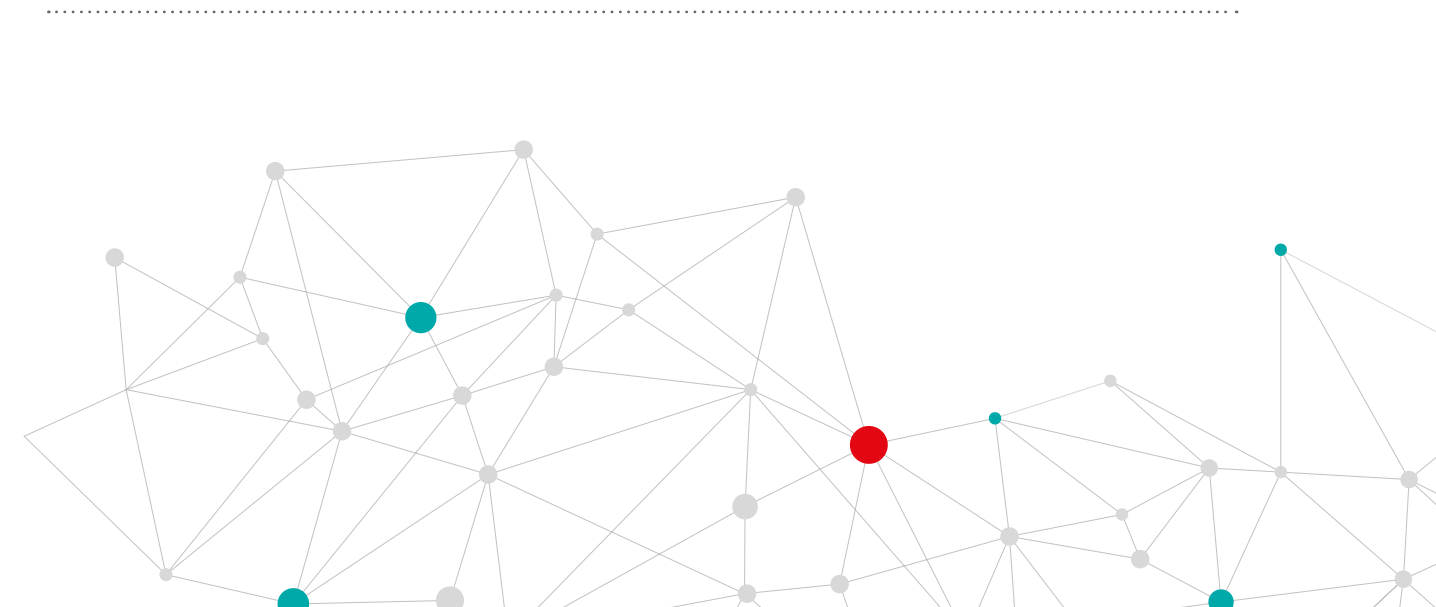
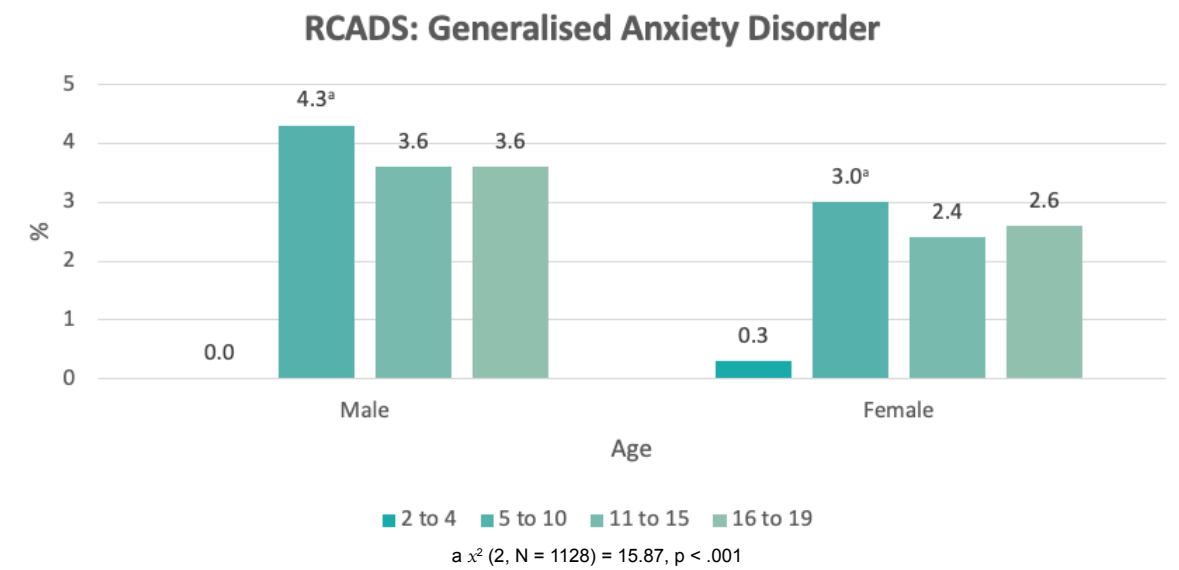
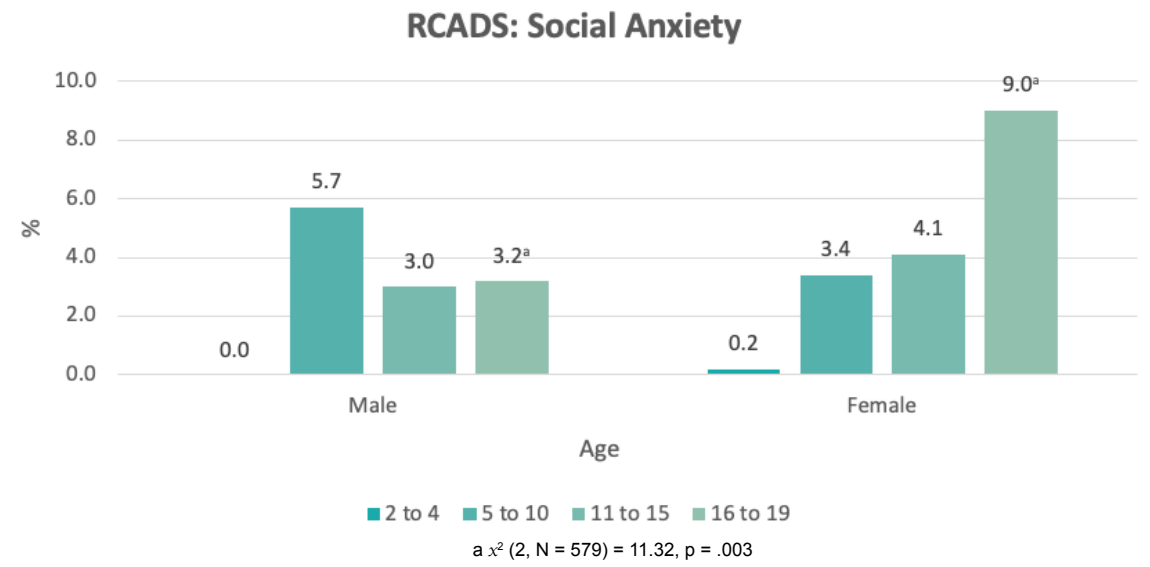
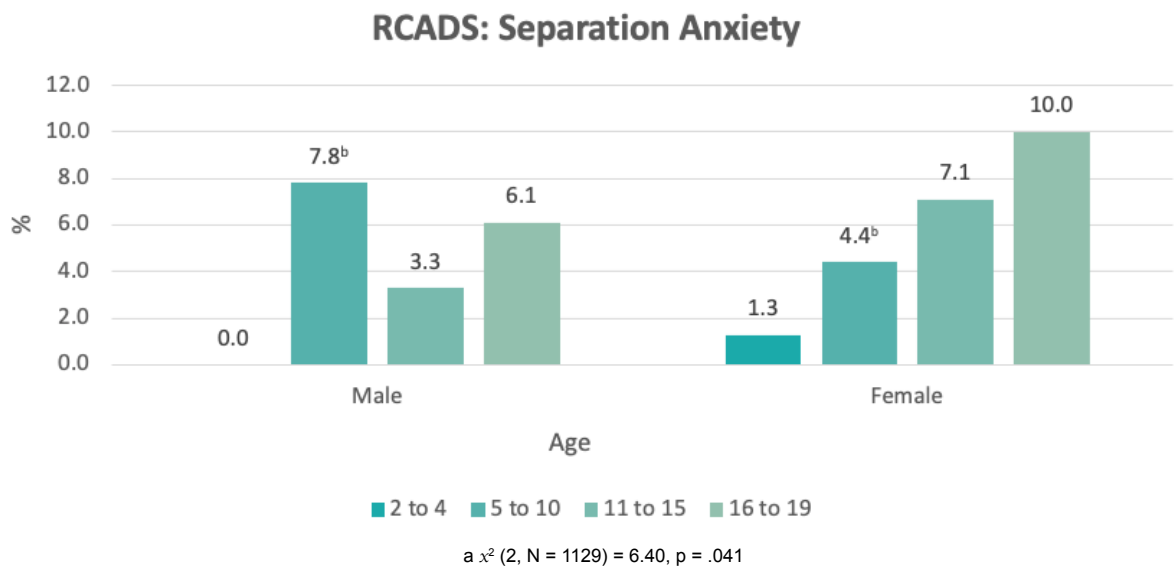
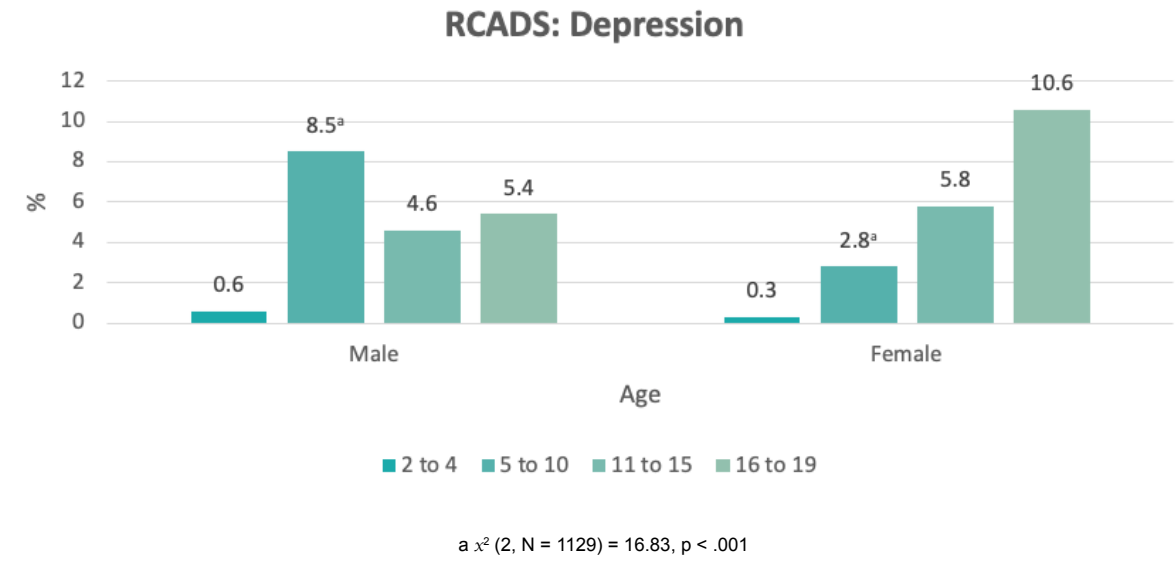


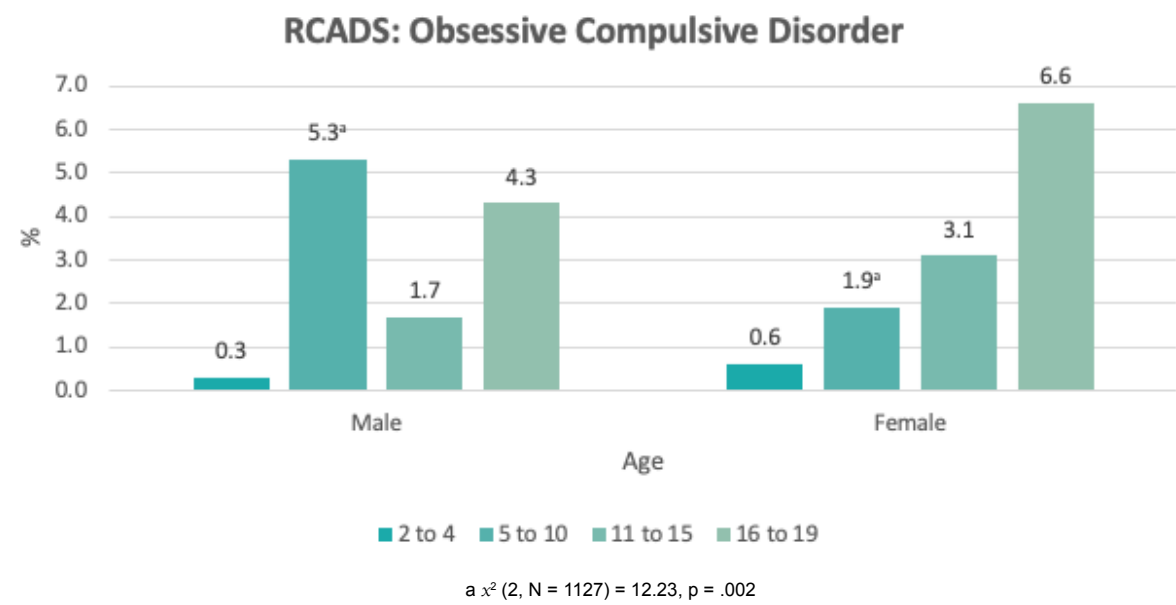
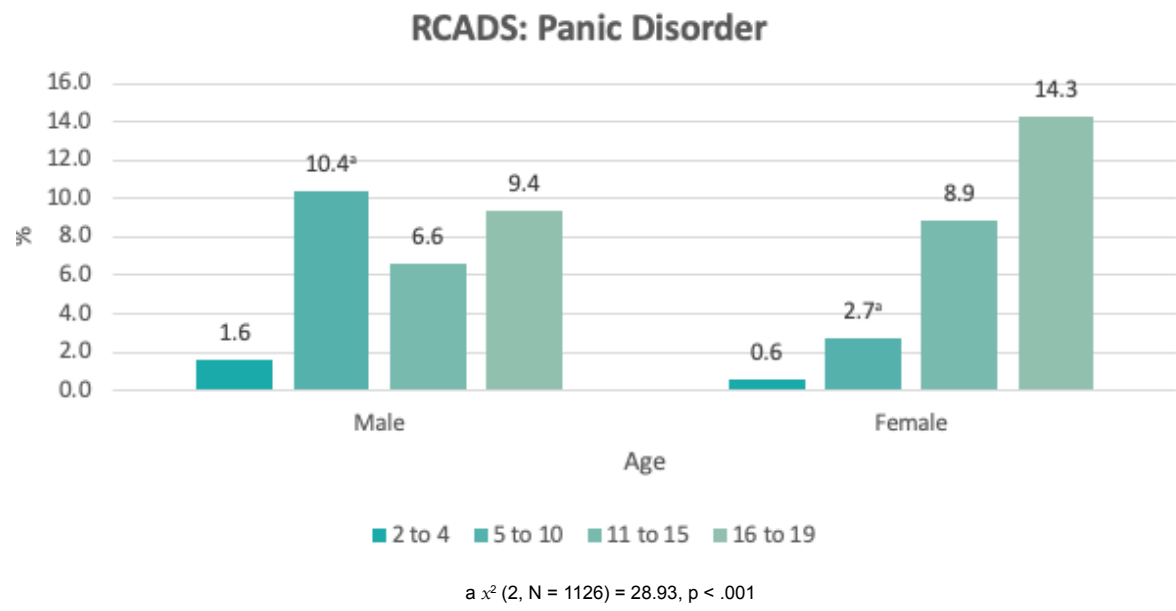
3.3 Results: Prevalence

The overall prevalence estimates for the separate mood and anxiety disorders ranged from 2.7% to 6.8%: generalised anxiety disorder (2.7%), obsessive compulsive disorder (3.1%), social phobia (3.8%), major depressive disorder (5.0%), separation anxiety disorder (5.2%), and panic disorder (6.8%). The prevalence rates for boys and girls differed only on social phobia,

with a higher rate for girls (4.0%) compared to boys (3.5%). The rate of 'any mood or anxiety disorder' was 12.6%, and this did not differ between boys (12.0%) and girls (13.1%). The prevalence of 'any mood or anxiety disorder' increased with age; 2-4 years 4.2%, 5-10 years 12.8%, 11-15 years 14.3%, and 16-19 years 18.6%. The prevalence rates of mood and anxiety disorders by age and gender are presented in Figure 3.1.

Figure 3.1 Prevalence Rates of RCADS Mood and Anxiety Disorders by Age and Gender



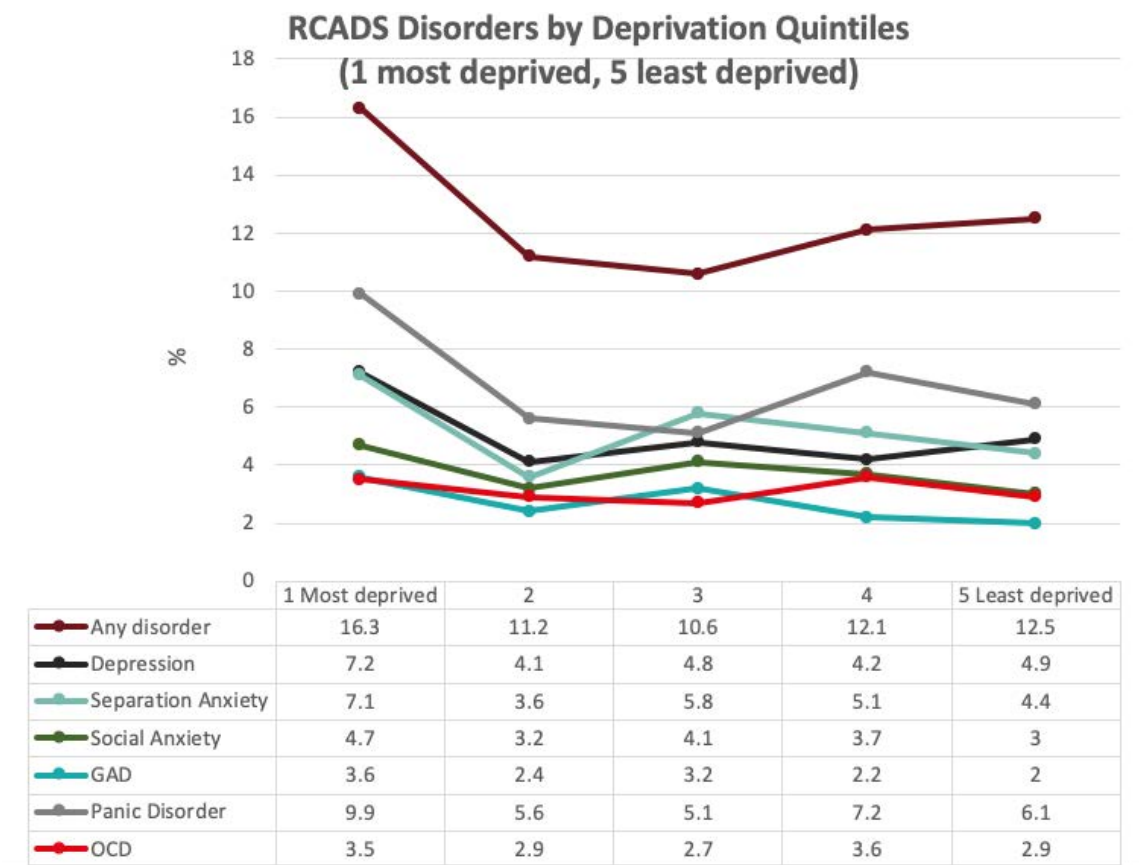


3.4 Results: Deprivation

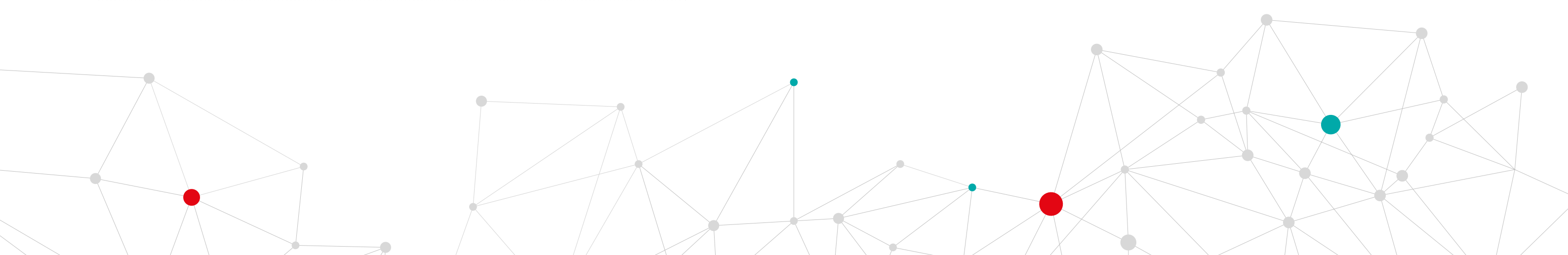
Figure 3.2 shows the distribution of the prevalence of the different disorders and 'any mood or anxiety disorder' across deprivation quintiles. Rates were consistently

highest in the most deprived quintile, then generally similar across deprivation quintiles although only higher rates in panic disorder reached statistical significance in the most deprived quintile compared to the least deprived (9.9% vs 6.1%).

Figure 2.2 SDQ Problems by Deprivation Quintile



Panic Disorder $\chi^2 (8, N = 2928) = 28.65, p < .001$



3.5 Overview & Key Statistics

The prevalence estimate for any common mood or anxiety disorder was 12.6%. Bearing in mind that different measures were used, this points to somewhat elevated prevalence rates compared to those identified in the Mental Health of Children and Young People in England Survey in 2017 (8.1%; Sadler et al., 2018). Panic disorder was the most common (6.8%), followed by separation anxiety disorder (5.2%), major depressive disorder (5.0%), social phobia (3.8%), obsessive compulsive disorder (3.1%) and generalised anxiety disorder (2.7%). Although only statistically significant for social anxiety disorder (9.0% vs 3.2%; $\chi^2(2) = 11.32$, $p = .003$), rates of major depressive disorder (10.6% vs 5.4%), separation anxiety disorder (10.0% vs 6.1%) and panic disorder (14.3% vs 9.4%) were higher for girls aged 16-19 years compared to boys in the same age group, a finding in line with previous research (Hamblin, 2016). There are some areas of overlap and on the emotional problems subscale of the SDQ discussed in Section 2, boys in the 5-10 year old age group had significantly higher levels of major depressive disorder (8.5% vs 2.8%), separation anxiety disorder (7.8% vs 4.4%), social anxiety disorder (5.7% vs 3.4%), generalised anxiety disorder (4.3% vs 3.0%), panic disorder (10.4% vs 2.7%; $\chi^2(2) = 28.93$, $p < .000$) and obsessive compulsive disorder (5.3% vs 1.9%; $\chi^2(2) = 12.23$, $p = .002$) than girls in the same age group. This reinforces the need to focus future research and practice efforts in better understanding the emotional needs of this age group, particularly boys.

- 12.6% of children and adolescents have a common mood or anxiety disorder with similar prevalence estimates between boys (12.0%) and girls (13.1%).
- Panic disorder was the most common (6.8%), followed by separation anxiety disorder (5.2%), major depressive disorder (5.0%), social phobia (3.8%), obsessive compulsive disorder (3.1%) and generalised anxiety disorder (2.7%).
- Prevalence estimates of social anxiety disorder were higher for girls aged 16-19 years compared to boys in the same age group (10% vs 6.1%).
- Boys aged 5-10 years had significantly higher levels of major depressive disorder (8.5% vs 2.8%), separation anxiety disorder (7.8% vs 4.4%), social anxiety disorder (5.7% vs 3.4%), generalised anxiety disorder (4.3% vs 3.0%), panic disorder (10.4% vs 5.5%) and obsessive compulsive disorder (5.3% vs 1.9%) than girls in the same age group.
- Rates were similar across deprivation quintiles with the exception of panic disorder which had higher rates in the most deprived quintile compared to the least deprived (9.9% vs 6.1%). Nonetheless, rates were highest in the most deprived quintile for each disorder.

3.6 References

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders, Text Revision (DSM-IV-TR)*. Washington, DC: APA.

Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. *Behaviour Research & Therapy*, 38(8), 835-855.

Fink, E., Patalay, P., Sharpe, H., Holley, S., Deighton, J., & Wolpert, M. (2015). Mental health difficulties in early adolescence: a comparison of two cross-sectional studies in England from 2009 to 2014. *Journal of Adolescent Health*, 56(5), 502-507.

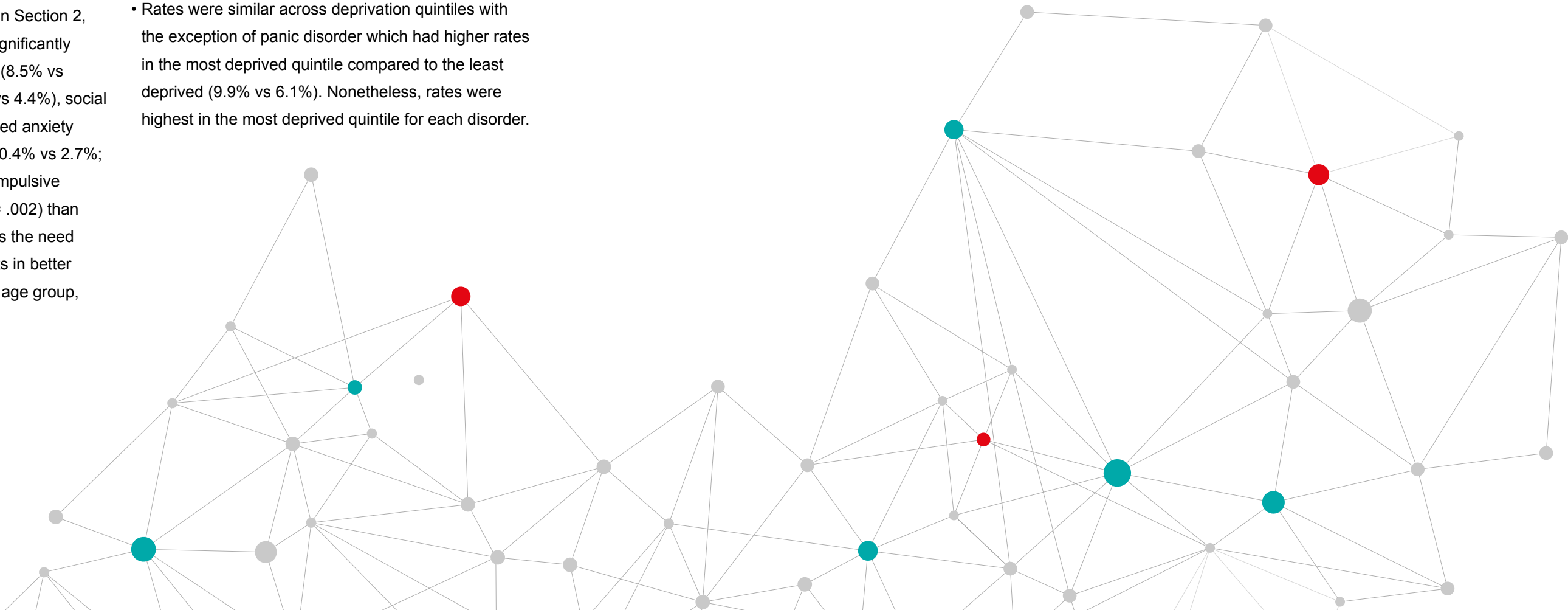
Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H., & Blumberg, S. J. (2019). Prevalence and treatment of depression, anxiety, and conduct problems in US children. *The Journal of Pediatrics*, 206, 256-267. e253. doi:10.1016/j.jpeds.2018.09.021

Growing up in Ireland. (2016). *Growing up in Ireland. Key findings: child cohort at 17/19 years. No. 3: Life satisfaction, relationships and mental health*. Retrieved from <https://www.growingup.ie/pubs/SUSTAT58.pdf>

Hamblin, E. (2016). *Gender and children and young people's emotional and mental health: manifestations and responses: A rapid review of the evidence*. National Children's Bureau, 20-22.

Lawrence, D., Hafekost, J., Johnson, S. E., Saw, S., Buckingham, W. J., Sawyer, M. G., . . . Zubrick, S. R. (2016). Key findings from the second Australian child and adolescent survey of mental health and wellbeing. *Australian & New Zealand Journal of Psychiatry*, 50(9), 876-886.

Sadler, K., Vizard, T., Ford, T., Marcheselli, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). *Mental health of children and young people in England, 2017*. London: NHS Digital.



4 Trauma & Stress-Related Disorders

4.1 Background

The two major classification systems for psychological disorders, the International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM), closely align in their descriptions of many mental health disorders but in their most recent revisions they differ in conceptually substantial ways in relation to posttraumatic stress disorder (PTSD). Both systems acknowledge PTSD is a distressing psychological response in relation to a "...threatening or horrific event or series of events" (ICD-11), however, the fifth edition of the DSM (DSM-5; APA, 2013) has broadened the number and range of symptoms whereas the eleventh edition of ICD (ICD-11; WHO, 2018) has streamlined the number of symptoms to focus on those deemed core. Importantly, the ICD-11 acknowledges the heterogeneity of trauma-related symptoms by organising them into two distinct disorders, PTSD and Complex PTSD (CPTSD).

An ICD-11 diagnosis of PTSD is based on six symptoms reflecting three symptom-clusters, each with 2 symptoms: (i) re-experiencing in the here and now, (ii) deliberate avoidance, and (iii) a current sense of threat. The sibling disorder, Complex PTSD (CPTSD), requires that all the diagnostic requirements for PTSD have been met, plus an additional set of symptoms that reflect 'Disturbances

in Self-Organization' (DSO). These DSO symptoms are intended to capture the pervasive psychological disturbances that can occur following exposure to trauma, particularly those of an interpersonal nature, that occur in early development, that are of a repeated and prolonged nature, and from which escape is difficult or impossible. The six DSO symptoms are organised in three symptom-clusters: (i) affective dysregulation, (ii) negative self-concept, and (iii) disturbed relationships. PTSD and CPTSD each require evidence of functional impairment. Given their symptom composition, PTSD is conceptualised as a fear-based disorder, whereas CPTSD is conceptualised as a broader disorder that reflects the impact of trauma on emotion regulation, identity and interpersonal domains. Details of the symptoms and diagnostic requirements for ICD-11 PTSD and CPTSD are presented in Table 4.1.

Lifetime and 12-month prevalence of PTSD in the Northern Ireland adult population has been estimated to be 8.8% and 5.1% (Bunting et al., 2013) and highest across 11 high income countries (Karam et al., 2014). Women have a two to three fold higher risk of developing post-traumatic stress disorder (PTSD) compared to men (Christiansen & Hansen, 2015). More recent research that also assessed CPTSD found that in a nationally representative sample of adults in the Republic of Ireland

the past-month prevalence for PTSD was 5.0% and for CPTSD was 7.7% (Hyland et al., 2020). The estimates of PTSD prevalence in children and young people have been variable. The prevalence of PTSD in very young children, up to the age of 6 years, has been shown to be very low (0.6%: Vasileva, Haag, Landolt, & Petermann, 2018). Similarly the Mental Health of Children and Young People survey in England has identified PTSD rates of 0.2% of 5-10 year olds, 0.6% for 11-16 year olds, and 1.3% for 17-19 year olds (Sadler et al., 2018). However, a cohort study of 2232 twins born in England and Wales in 1994–9 found a lifetime prevalence of PTSD by age 18 years of 7.8% and 12-month prevalence of 4.4%, with rates among females almost double that of males (Lewis et al., 2019). Likewise, meta-analyses have reported rates of between 11% to 20% for trauma exposed children and adolescents (Alisic et al., 2014) although there is evidence that the prevalence reduces by over 50% within a year of trauma exposure (Hiller et al., 2016). More recently there have been studies that have validated the PTSD and CPTSD constructs in a sample of trauma exposed young people (Haselgruber, Sölva, & Lueger-Schuster, 2020) but to date there have been no studies that have estimated the prevalence of PTSD and CPTSD for young people in the general population.

4.2 Measures

The International Trauma Questionnaire (ITQ; Cloitre et al., 2018) is the only adult self-report measure for PTSD and CPTSD. Recently, a Child and Adolescent version (ITQ-CA: Cloitre, Roberts, Bisson, & Brewin, 2018) has been developed. The ITQ-CA consists of 6 items which measure the symptoms of PTSD and 6 items which measure the symptoms of CPTSD, as set out in Table 4.1, together with 2 items which each assess the impact these symptoms may have had on the young person's relationships, school, work and general happiness.

The ITQ-CA is usually used in conjunction with the traumatic events checklist, the Child and Adolescent Trauma Screen (CATS; Sachser et al., 2017), which is used to assess the young person's exposure to traumatic events which may have led to PTSD or CPTSD. This 14-item checklist was adapted to include additional measures for experiences of family trauma and maltreatment, as well as other common family difficulties such as parent substance abuse, domestic violence, and parental incarceration. Generally referred to as 'adverse childhood experiences' (ACEs), these are consistently identified as significantly increasing the likelihood of a broad range of negative outcomes amongst adults, as well as children and adolescents (Oral et al., 2016). Findings for the original 14 item checklist are presented in this section, while findings from the ACE related question are discussed in Section 7. Only 11-19 years olds were asked to complete the CATS and ITQ-CA.

Table 4.1 Symptoms and Diagnostic Requirements for ICD-11 PTSD and CPTSD

PTSD Criteria	Complex PTSD Criteria
	Major depressive disorder
1. Traumatic exposure (required)	1. All PTSD diagnostic requirements necessary and disturbances in self-organisation (DSO)
2. Re-experiencing (1 of 2 required) <ul style="list-style-type: none"> • Upsetting dreams • Flashbacks 	2. Affective dysregulation (1 of 2 required) <ul style="list-style-type: none"> • Emotional reactivity • Emotional numbing
3. Avoidance (1 of 2 required) <ul style="list-style-type: none"> • Internal reminders • External reminders 	3. Negative self-concept (1 of 2 required) <ul style="list-style-type: none"> • Failure • Worthless
4. Sense of threat (1 of 2 required) <ul style="list-style-type: none"> • Vigilance • Hyperarousal 	4. Disturbed relationships (1 of 2 required) <ul style="list-style-type: none"> • Cut-off from people • Hard to stay close to others
5. Functional impairment associated with these symptoms (required)	5. Functional impairment associated with these symptoms (required)

4.3 Results: Prevalence

For the total sample the most commonly reported traumas were witnessing violence (17.0%), having a serious accident (16.8%), and sudden death of a loved

Table 4.2 Rate of Trauma Exposure by Gender

Traumatic Event	Male (n=662)	Female (n=631)	Total
1 Serious natural disaster like a flood, tornado, hurricane, earthquake, or fire.	14 (2.1%)	7 (1.1%)	21 (1.6%)
2 Serious accident or injury like a car or bike crash, dog bite, or sports injury.	132 (19.9%)	85 (13.5%)*	217 (16.8%)
3 Threatened, hit or hurt badly in my family.	27 (4.1%)	17 (2.7%)	44 (3.4%)
4 Threatened, hit or hurt badly in school or the community.	81 (12.2%)	39 (6.2%)*	120 (9.3%)
5 Attacked, stabbed, shot at or robbed by threat.	14 (2.1%)	5 (0.8%)*	19 (1.5%)
6 Seeing someone in my family threatened, hit or hurt badly.	43 (6.5%)	42 (6.7%)	85 (6.6%)
7 Seeing someone in school or the community threatened, hit or hurt badly.	140 (21.1%)	80 (12.7%)*	220 (17.0%)
8 Someone touching my private parts when they shouldn't. Or making me touch their private parts.	10 (1.5%)	15 (2.4%)	25 (1.9%)
9 Someone forcing or pressuring me to do sexual things. Or having to do sexual things when I couldn't say no.	9 (1.4%)	11 (1.7%)	20 (1.5%)
10 Someone asking or pressuring me online to take or send pictures of my private parts, or to touch myself.	10 (1.5%)	25 (4.0%)*	35 (2.7%)
11 Someone close to me dying suddenly or violently.	67 (10.1%)	71 (11.3%)	138 (10.7%)
12 Stressful or scary medical procedure.	28 (4.2%)	27 (4.3%)	55 (4.3%)
13 Being around war.	7 (1.1%)	5 (0.8%)	12 (0.9%)
14 Other stressful or scary event.	24 (3.6%)	29 (4.6%)	53 (4.1%)

Note: * significant at p < .05 for males and females

The majority of the sample (63.2%) did not report any trauma exposure, 16.9% reported one exposure, 9.5% two, and 10.4% reported three or more traumas. This means that 36.8% of the participants met the trauma

one (10.7%). The rates of trauma exposure by gender are reported in Table 4.2. Males had significantly higher rates of having a serious accident, being threatened, attacked, and witnessing violence, while females had significantly higher rates of online sexual harassment.

exposure criterion for PTSD. The symptom endorsement rates for the trauma exposed participants are reported in Table 4.3.

Table 4.3 Symptom Cluster Endorsement Rates for PTSD and DSO Symptoms for Trauma-Exposed Participants (n=478)

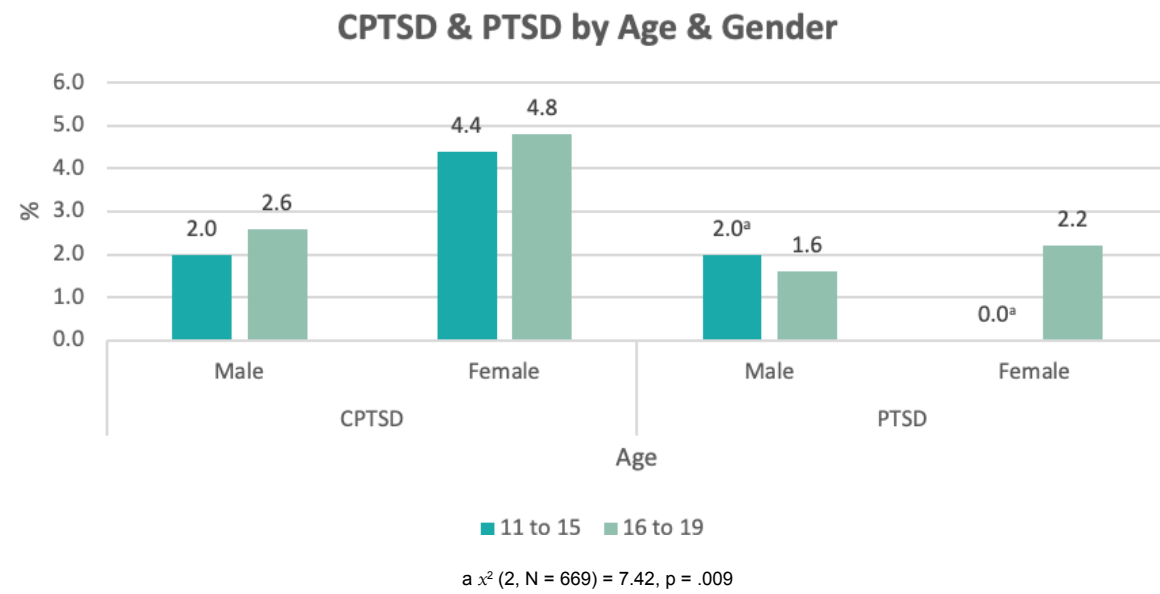
Symptom Cluster	Male (n=264)	Female (n=214)	Total
PTSD			
Re-experiencing	54 (20.5%)	65 (30.4%)*	119 (24.9%)
Avoidance	74 (28.0%)	79 (36.9%)*	153 (32.0%)
Sense of Threat	60 (22.7%)	77 (36.0%)*	137 (28.7%)
PTSD: Functional Impairment	96 (36.4%)	109 (50.9%)*	205 (42.9%)
PTSD criteria met	27 (10.2%)	33 (15.4%)*	60 (12.6%)
DSO			
Affective Dysregulation	73 (27.7%)	88 (41.1%)*	161 (33.7%)
Negative Self-Concept	59 (22.3%)	80 (37.4%)*	139 (29.1%)
Disturbed Relationships	65 (24.6%)	72 (33.6%)*	137 (28.7%)
DSO: Functional Impairment	96 (36.4%)	109 (50.9%)*	205 (42.9%)
DSO criteria met	25 (9.5%)	50 (23.4%)*	75 (15.7%)

When the diagnostic algorithm was applied the prevalence of the two stress related disorders was 4.9%, for PTSD it was 1.5%, and for CPTSD it was 3.4%. The prevalence of PTSD was higher for males (1.8% vs 1.1%), and the prevalence for CPTSD was higher for females (2.3% vs 4.6%). The risk for PTSD was greatest for participants who had endorsed the CATS items "Being around war" (OR = 14.94, 95% CI 3.04, 73.40), "Attacked, stabbed, shot at or robbed by threat" (OR = 14.81, 95% CI 3.92, 55.89) and "Threatened, hit or hurt badly in school or the community" (OR = 6.02, 95% CI 2.33, 15.61). The risk for CPTSD was greatest for participants who had endorsed the CATS items

"Someone forcing or pressuring me to do sexual things" (OR = 58.45, 95% CI 22.36, 152.81), "Threatened, hit or hurt badly in my family" (OR = 19.06, 95% CI 9.18, 39.56), and "Someone touching my private parts when they shouldn't" (OR = 13.00, 95% CI 5.12, 33.03).

Boys were significantly more likely than girls to have PTSD (1.8% vs 1.1%) and girls were more likely to have CPTSD than boys (4.6% vs 2.3%) ($\chi^2(2) = 10.60, p = .005$). There were no significant differences between 11-15 year olds and 16-19 year olds for either PTSD (1.0% vs 1.9%) or CPTSD (3.1% vs 3.7%). The prevalence rates of PTSD and CPTSD by age and gender are presented in Figure 4.1.

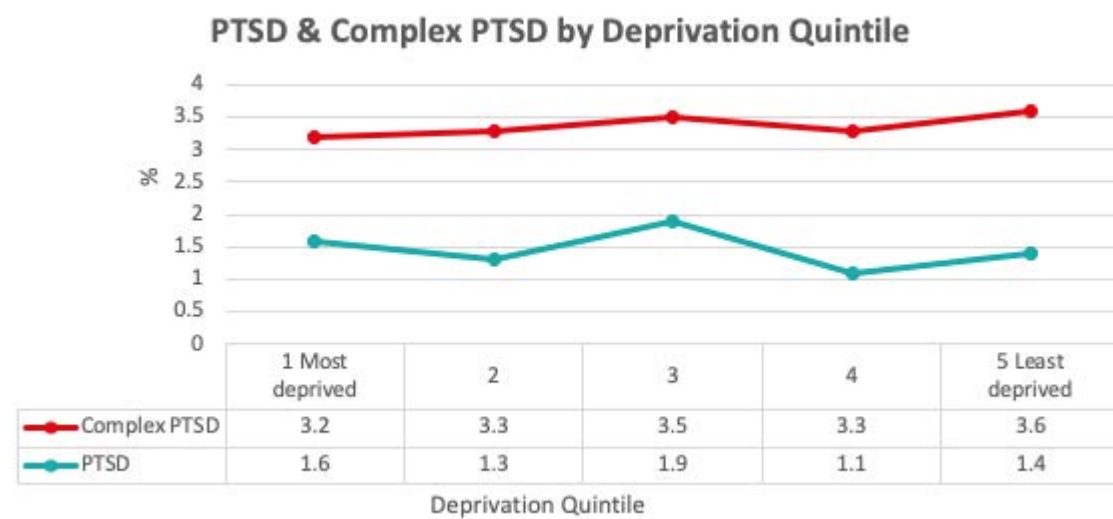
Figure 4.1 Complex Post-Traumatic Stress Disorder and Post-Traumatic Stress Disorder by Age and Gender



4.4 Results: Deprivation

Figure 4.2 shows the distribution of the prevalence of stress related disorders across deprivation quintiles. PTSD and CPTSD were not associated with deprivation.

Figure 4.2 Prevalence Estimates of Post-Traumatic Stress Disorder (PTSD) and Complex PTSD by Deprivation Quintile



4.5 Overview & Key Statistics

The findings from the Youth Wellbeing NI Survey indicate that 36.8% of young people aged 11-19 years in NI have experienced trauma, with witnessing violence (17.0%), having a serious accident (16.8%), and experiencing the sudden death of a loved one (10.7%) being the most common. The estimated prevalence of young people with PTSD was 1.5%, a somewhat higher figure than that identified in the Mental Health of Children and Young People in England survey (Sadler et al., 2018), suggesting elevated levels within the NI youth population. Rates of CPTSD, available for the first time for a sample of UK adolescents, indicate that 3.4% of young people in NI meet the criteria for this disorder. Although adult and adolescent females tend to have higher rates of PTSD than males (Christiansen & Hansen, 2015; Lewis et al., 2019), PTSD was higher for males in NI (1.8% vs 1.1%). However, female adolescents in NI were twice as likely to have CPTSD (4.6% vs 2.3%) and experiences of sexual trauma and familial violence were strongly associated with CPTSD, while exposure to war and interpersonal violence associated with PTSD. Together, these findings indicate that gender and trauma exposure type play a significant role in the aetiology of each disorder.

- The most commonly reported traumas by Northern Ireland adolescents were witnessing violence (17.0%), having a serious accident (16.8%), and sudden death of a loved one (10.7%).
- The estimated prevalence of the two stress related disorders was 4.9%, for PTSD it was 1.5%, and for CPTSD it was 3.4%.
- The prevalence of PTSD was higher for males (males = 1.8%, females = 1.1%), and the prevalence for CPTSD was higher for females (males = 2.3%, females = 4.6%).
- Experience of sexual trauma and familial violence was strongly associated with CPTSD, while exposure to war and interpersonal violence was associated with PTSD.
- PTSD and CPTSD were not significantly associated with area-level deprivation.

4.6 References

Alisic, E., Zalta, A. K., Van Wesel, F., Larsen, S. E., Hafstad, G. S., Hassanpour, K., & Smid, G. E. (2014). Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: meta-analysis. *The British Journal of Psychiatry*, 204(5), 335-340.

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, (DSM-5) (5th ed.)*. Arlington, VA: APA.

Christiansen, D. M., & Hansen, M. (2015). Accounting for sex differences in PTSD: A multi-variable mediation model. *European Journal of Psychotraumatology*, 6(1), 26068.

Cloitre, M., Roberts, N. P., Bisson, J. I., & Brewin, C. R. (2018). International trauma questionnaire – child and adolescent version (ITQ-CA).

Cloitre, M., Shevlin, M., Brewin, C. R., Bisson, J. I., Roberts, N. P., Maercker, A., . . . Hyland, P. (2018). The International Trauma Questionnaire: development of a self-report measure of ICD-11 PTSD and complex PTSD. *Acta Psychiatrica Scandinavica*, 138(6), 536-546.

Haselgruber, A., Sölva, K., & Lueger-Schuster, B. (2020). Validation of ICD-11 PTSD and complex PTSD in foster children using the International Trauma Questionnaire. *Acta Psychiatrica Scandinavica*, 141(1), 60-73.

Hiller, R. M., Meiser-Stedman, R., Fearon, P., Lobo, S., McKinnon, A., Fraser, A., & Halligan, S. L. (2016). Research Review: Changes in the prevalence and symptom severity of child post-traumatic stress disorder in the year following trauma—A meta-analytic study. *Journal of Child Psychology & Psychiatry*, 57(8), 884-898.

Hyland, P., Vallières, F., Cloitre, M., Ben-Ezra, M., Karatzias, T., Olf, M., . . . Shevlin, M. (2020). Trauma, PTSD, and complex PTSD in the Republic of Ireland: prevalence, service use, comorbidity, and risk factors. *Social Psychiatry & Psychiatric Epidemiology*, 1-10.

Karam, E. G., Friedman, M. J., Hill, E. D., Kessler, R. C., McLaughlin, K. A., Petukhova, M., . . . Bromet, E. J. (2014). Cumulative traumas and risk thresholds: 12-month PTSD in the World Mental Health (WMH) surveys. *Depression & Anxiety*, 31(2), 130-142.

Lewis, S., Arseneault, L., Caspi, A., Fisher, H. L., Matthews, T., Moffitt, T. E., . . . Danese, A. (2019). The epidemiology of trauma and post-traumatic stress disorder in a representative cohort of young people in England and Wales. *The Lancet Psychiatry*, 6(3), 247-256. doi: [https://doi.org/10.1016/S2215-0366\(19\)30031-8](https://doi.org/10.1016/S2215-0366(19)30031-8)

Oral, R., Ramirez, M., Coohy, C., Nakada, S., Walz, A., Kuntz, A., . . . Peek-Asa, C. (2016). Adverse childhood experiences and trauma informed care: the future of health care. *Pediatric Research*, 79(1), 227-233.

Sachser, C., Berliner, L., Holt, T., Jensen, T. K., Jungbluth, N., Risch, E., . . . Goldbeck, L. (2017). International development and psychometric properties of the Child and Adolescent Trauma Screen (CATS). *Journal of Affective Disorders*, 210, 189-195.

Sadler, K., Vizard, T., Ford, T., Marchesell, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). *Mental health of children and young people in England, 2017*. London: NHS Digital.

Vasileva, M., Haag, A. C., Landolt, M. A., & Petermann, F. (2018). Posttraumatic stress disorder in very young children: Diagnostic agreement between ICD-11 and DSM-5. *Journal of Traumatic Stress*, 31(4), 529-539.

World Health Organisation. (2018). *International Classification of Diseases eleventh revision (ICD 11)*. Geneva: WHO.



5 Young People at Risk of other Mental Health Problems

5.1 Screening for Mental Health Problems

Screening should be a key component of any service that aims to treat emerging health conditions at an early stage, and ultimately prevent the emergence of mental illness. Screening encompasses any approach which aims to determine if an individual is at a higher risk of developing a specific condition (NHS, 2018). Targeted screening is offered to individuals at a known higher risk of developing a condition, and universal screening is offered to all individuals within certain populations. Once it is determined that an individual is at-risk, further diagnostic tests or assessments may be carried out, or long-term follow-up may be indicated.

Any screening approach in the mental health setting must ultimately be tested against criteria for effective screening (Obuchowski, Graham, Baker, & Powell, 2001):

1. The disease screened has serious consequences.
2. The screening population has a high prevalence of detectable preclinical disease.
3. The screening test detects little pseudo-disease.
4. The screening test has high accuracy for detecting the detectable preclinical disease.
5. The screening test detects disease at a point in which intervention improves outcome.
6. The screening test causes little morbidity.
7. The screening test is affordable and available.
8. Treatment exists.
9. Treatment is more effective when applied before symptoms begin.
10. Treatment is not too risky or toxic.

In Northern Ireland, screening for mental health conditions is not in wide use at this time. Mental health services, including CAMHS services, rely primarily on individuals attending in primary care settings to ask for help with mental distress. Other professionals working day-to-day with children such as teachers, social workers, health visitors seldom carry out screening assessments. We know however that many young people are reluctant to seek help for mental health difficulties from traditional gatekeepers (Leavey, Rothi, & Paul, 2011; Zachrisson, Rödje, & Mykletun, 2006) and young people who need help the most may also be amongst the least likely to access it (Rickwood, Deane, Wilson, & Ciarrochi, 2005). Only 30% of young people stated they would attend their general practitioner if they were hearing voices (Leavey et al., 2011).

Young people identify stigma, embarrassment, and difficulty recognising mental health problems as barriers to seeking help for mental and emotional difficulties (Gulliver, Griffiths, & Christensen, 2010). There is also evidence that many young people prefer to use self-administered measures, either beforehand or during a face-to-face appointment, and then discussing their answers with a mental health professional in more detail (Bradford & Rickwood, 2012). In this section we explore the use of several self-report measures which show promise as effective screening tools and which identify young people that may meet criteria for an autism spectrum disorder, an eating disorder, or be at risk of a psychotic illness such as schizophrenia in the future.

5.2 Autism Spectrum Disorder: Background

Autism spectrum disorder (ASD) is a disorder of the brain that affects a person's behaviour, communication, and social skills. Diagnosing ASD is often difficult and is essentially dependent on a child's developmental history and behaviour. ASD can be detected at a very early age, 18 months or younger, and by age 2, a diagnosis by an experienced professional can be considered very reliable (Lord et al., 2006). However, many children do not receive a final diagnosis until they are much older and some people are not diagnosed until they are adolescents or adults. Diagnosing children with ASD as early as possible is important to make sure they receive the services and supports they need to reach their full potential (Hyman, Levy, & Myers, 2020).

NICE (2012) recommends assessment for possible autism when a person has:

- one or more of the following:
 - persistent difficulties in social interaction;
 - persistent difficulties in social communication;
 - stereotypic (rigid and repetitive) behaviours, resistance to change or restricted interests, and
- one or more of the following:
 - problems in obtaining or sustaining employment or education;
 - difficulties in initiating or sustaining social relationships;
 - previous or current contact with mental health or learning disability services;
 - a history of a neurodevelopmental condition (including learning disabilities and attention deficit hyperactivity disorder) or mental disorder.

For adults with possible autism who do not have a moderate or severe learning disability, NICE suggests the

use of the Autism-Spectrum Quotient – 10 items (AQ-10; Allison, Auyeung, & Baron-Cohen, 2012).

As with other disorders, the prevalence of ASD varies depending on the measure used and population studied, although meta-analyses involving more than forty studies has produced estimates of 7.1 per 10,000 for typical autism and 20.0 per 10,000 for all ASD related disorders (Williams, Higgins, & Brayne, 2006). The Mental Health of Children and Young People survey (Sadler et al., 2018) in England identified 1.3% of 5-15 year olds as meeting the criteria for Pervasive Developmental Disorder (PDD) or Autism Spectrum Disorder, while analysis of Scottish Census data found that 1.9% of children aged 0–15 years and 1.2% young people aged 16–24 years had an autism diagnosis (Rydzewska et al., 2019). Typically boys have significantly higher rates than girls (Rydzewska et al., 2019; Sadler et al., 2018).

There is also evidence that reported rates of ASD among UK children have been rising over the past decade. A 2020 report on autism in UK schools demonstrated increases in prevalence rates over a nine-year period across England, Wales, Scotland and Northern Ireland (McConkey, 2020). Northern Ireland had the highest prevalence throughout at 3.20% of all students in 2018-19, more than double the rate of 1.41% nine years earlier. The lowest rate in 2019 was in Wales (1.92%), followed by England (2.25%) and Scotland (2.51%). These findings were based on consistent protocols for recording ASD with pupils having undergone a formal process of assessment and received a statement of their special education needs. Although this increase requires further explanation and replication, it has been suggested that seven factors are at play: improved recognition and detection; changes in study methodology; an increase in available diagnostic services; increased awareness among professionals and parents; growing acceptance that autism can coexist with a range of other conditions; and a widening of the diagnostic criteria (Baron-Cohen et al., 2009).



5.3 Autism Spectrum Disorder: Measures

The Modified Checklist for Autism in Toddlers, Revised (M-CHAT-R; Robins et al., 2014), is a two-stage validated screening tool for toddlers aged between 16 and 30 months of age. It is designed to identify children who may benefit from a more thorough developmental and autism evaluation. We used the first stage screening tool

to identify ASD characteristics (Table 5.1). The primary goal of the M-CHAT-R is to maximize sensitivity, to detect as many cases of ASD as possible. Therefore, there is a high false positive rate, meaning that not all children who score 'at risk' will be diagnosed with ASD. However, these children are at high risk for other developmental disorders or delays, and therefore, evaluation is warranted for any child who screens positive.

Table 5.1 Modified Checklist for Autism in Toddlers, Revised

Question		Answer	
1	If you point at something across the room, does your child look at it? (FOR EXAMPLE, if you point at a toy or an animal, does your child look at the toy or animal?)	Yes	No
2	Have you ever wondered if your child might be deaf?	Yes	No
3	Does your child play pretend or make-believe? (FOR EXAMPLE, pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal?)	Yes	No
4	Does your child like climbing on things? (FOR EXAMPLE, furniture, playground equipment, or stairs)	Yes	No
5	Does your child make unusual finger movements near his or her eyes? (FOR EXAMPLE, does your child wiggle his or her fingers close to his or her eyes?)	Yes	No
6	Does your child point with one finger to ask for something or to get help? (FOR EXAMPLE, pointing to a snack or toy that is out of reach)	Yes	No
7	Does your child point with one finger to show you something interesting? (FOR EXAMPLE, pointing to an airplane in the sky or a big truck in the road)	Yes	No
8	Is your child interested in other children? (FOR EXAMPLE, does your child watch other children, smile at them, or go to them?)	Yes	No
9	Does your child show you things by bringing them to you or holding them up for you to see – not to get help, but just to share? (FOR EXAMPLE, showing you a flower, a stuffed animal, or a toy truck)	Yes	No
10	Does your child respond when you call his or her name? (FOR EXAMPLE, does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?)	Yes	No
11	When you smile at your child, does he or she smile back at you?	Yes	No
12	Does your child get upset by everyday noises? (FOR EXAMPLE, does your child scream or cry to noise such as a vacuum cleaner or loud music?)	Yes	No
13	Does your child walk?	Yes	No
14	Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her?	Yes	No
15	Does your child try to copy what you do? (FOR EXAMPLE, wave bye-bye, clap, or make a funny noise when you do)	Yes	No

Question		Answer	
16	If you turn your head to look at something, does your child look around to see what you are looking at?	Yes	No
17	Does your child try to get you to watch him or her? (FOR EXAMPLE, does your child look at you for praise, or say “look” or “watch me”?)	Yes	No
18	Does your child understand when you tell him or her to do something? (FOR EXAMPLE, if you don't point, can your child understand “put the book on the chair” or “bring me the blanket”?)	Yes	No
19	If something new happens, does your child look at your face to see how you feel about it? (FOR EXAMPLE, if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?)	Yes	No
20	Does your child like movement activities? (FOR EXAMPLE, being swung or bounced on your knee)	Yes	No

The Autism Quotient (AQ-10) is used as a quick referral guide for parents to complete about a child aged 4-11 years, or adolescent aged 12-15 years, with suspected autism who does not have a learning disability (Allison et

al., 2012). The AQ-10 was constructed by choosing the two items in each of the five domains that had the largest difference between cases and controls. The ten items cover 5 domains (Table 5.2):

Table 5.2 AQ-10 Child Version

AQ-10 Question (Child Version)	Subscale
Often notices small sounds when others do not	Attention to detail
Usually concentrates more on the whole picture, rather than the small details	Attention to detail
In a social group, he or she can easily keep track of several different people's conversations	Attention switching
Finds it easy to go back and forth between different activities	Attention switching
Doesn't know how to keep a conversation going with his or her peers	Communication
Is good at social chit-chat	Communication
When he or she is read a story, he or she finds it difficult to work out the character's intentions or feelings	Imagination
When he or she was in preschool, he or she used to enjoy playing games involving pretending with other children	Imagination
Finds it easy to work out what someone is thinking or feeling just by looking at their face	Social skills
Finds it hard to make new friends	Social skills

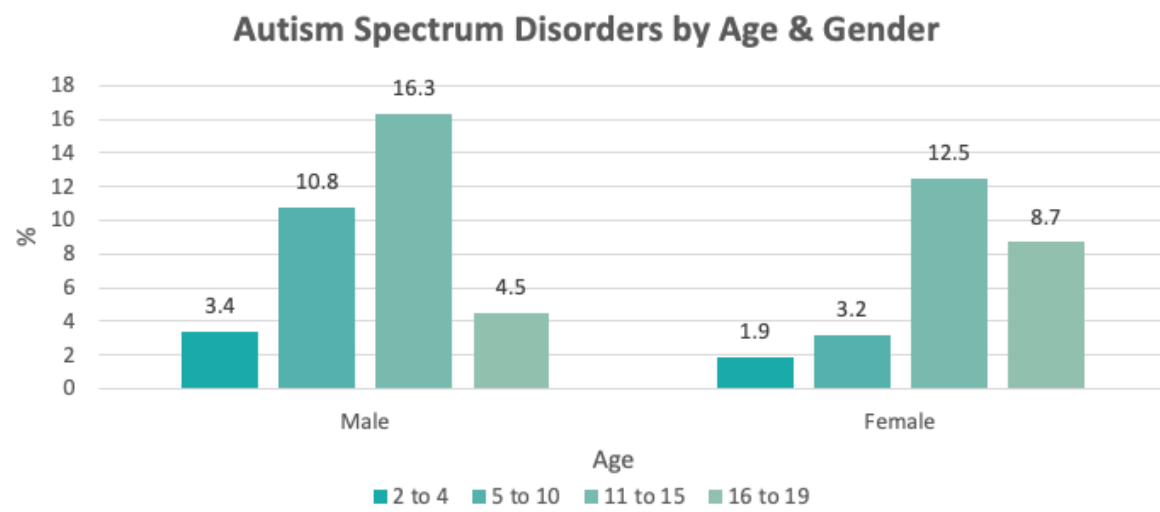


5.4 Autism Spectrum Disorder: Prevalence

The percentage of the sample exceeding the cut-off scores for the ASD screening measures was 7.74%, and there were significantly higher rate for males (9.2%) than females (6.1%; $\chi^2(1) = 10.66, p = .001$). Screening

positive for ASD was also associated with age ($\chi^2(3) = 69.44, p < .001$) with higher numbers in the 11 to 15 years group having screened positive. The prevalence rates for those at risk of autism spectrum disorder by age and gender are shown in Figure 5.1.

Figure 5.1 Autism Spectrum Disorders by Age and Gender

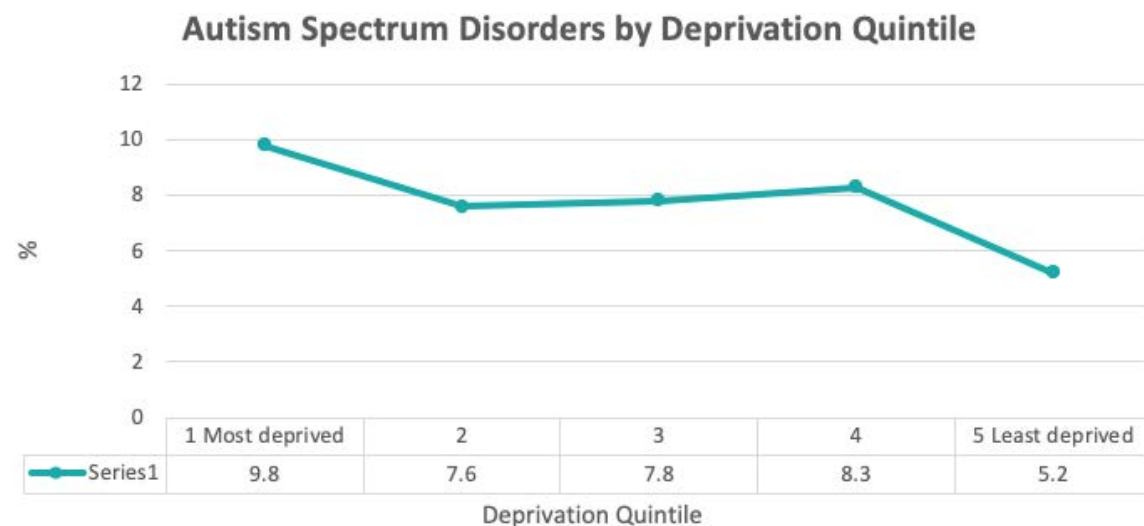


5.5 Autism Spectrum Disorder: Deprivation

Figure 5.2 shows the distribution of the prevalence of Autism Spectrum Disorders across deprivation quintiles.

Screening positive for ASD was not significantly associated with deprivation ($\chi^2(4) = 9.44, p < .001$) although there was a trend with the most deprived quintile having the highest proportion of participants that screened positive.

Figure 5.2 Autism Spectrum Disorders by Deprivation Quintile



5.6 Autism Spectrum Disorder: Overview & Key Statistics

In the Youth Wellbeing NI Survey, 7.7% of children and young people in NI were found to be at risk of autism, with boys at greater risk than girls and 11-15 year olds at greater risk than other age groups. While this estimate is higher than the 3.2% of NI school aged children with a formal ASD diagnosis identified by McConkey (2020), it is important to note that this figure does not represent a formal diagnosis, but instead, highlights a group potentially requiring formal developmental assessment. The 3.4% of boys and 1.9% of boys aged 2-4 years old who screened positive on the M-CHAT-R, are also potentially at high risk for other developmental disorders or delays. Given that children and adolescents with ASD often have difficulties communicating appropriately, developing and maintaining friendships, and frequently present with co-occurring conditions, a late or missed diagnosis can have profound implications.

- 7.74% of children and young people were identified as being at risk of autism.
- Prevalence estimates were significantly higher for males than females (9.2% vs 6.1%).
- Rates were highest for the 11-15 year old age group (16.3% of males; 12.5% of females).
- There was no statistically significant relationship with deprivation and risk of autism, although rates trended downward as deprivation decreased.

5.7 Psychotic-Like Experiences: Background

It has become increasingly recognised that psychotic experiences occur commonly in the general population, for example, one review found a median prevalence of 13.2% for voice-hearing (Beavan, Read, & Cartwright, 2011). In the majority of cases these experiences do not reach clinical thresholds, in terms of severity or frequency, for a diagnosis of a psychotic illness (typically

schizophrenia). However, in one study, 7.4% of those reporting psychotic experiences at baseline developed a diagnosable psychotic disorder on follow-up (Linscott & Van Os, 2013) suggesting that some people who report such experiences are at increased risk of psychosis.

In recent years, there has been much interest in early intervention in the pathways to psychotic illnesses such as schizophrenia. Such interventions have been demonstrated to improve prognosis, and if targeted in the prodromal stages, may delay or actually prevent onset (Fusar-Poli et al., 2012). The concept of the 'At-Risk Mental State' (ARMS) has been developed and defined in order to assist in the effort to detect those who are at risk of developing a psychotic illness. A meta-analysis found that 36% of people with an ARMS will transition to psychosis after 3 years (Fusar-Poli et al., 2012).

Psychotic experiences also often act as markers for non-psychotic mental health disorders, with one study finding that 73% of individuals at high risk of psychosis had at least one comorbid diagnosis, with major depression being the most common, followed by anxiety disorder (Fusar-Poli et al., 2014).

To date, screening for the ARMS has targeted young people who are already seeking help. Dedicated psychosis prevention and early intervention clinics are now established in a number of countries, including in Northern Ireland (the STEP Psychosis Prevention Service in the Northern Health and Social Care Trust). Psychosis prevention clinics sometimes use a screening measure, such as the Prodromal Questionnaire-16 (PQ 16; Ising et al., 2012), followed up by a standardised assessment tool, most commonly the Comprehensive Assessment for the At-Risk Mental State (CAARMS; Yung et al., 2005).

5.8 Psychotic-Like Experiences: Measure

The Prodromal Questionnaire (PQ-16) is a self-report 16-item questionnaire used for screening unusual, or ‘psychotic like’ experiences associated with the psychosis prodrome and findings supporting its use in a number of settings has been established in a systematic review (Savill, D’Ambrosio, Cannon, & Loewy, 2018).

The subscales consist of perceptual abnormalities or hallucinations (9 items), unusual thought content, delusional ideas or paranoia (5 items) and two items related to negative symptoms. It has high sensitivity (87%) and high specificity (87%) in distinguishing between meeting criteria and not meeting criteria for having an at-risk mental state as assessed using the Comprehensive Assessment of At-Risk Mental State (CAARMS; Yung et al., 2005), and has good internal consistency with Cronbach’s $\alpha = .8$ (Ising et al., 2012). The presence of unusual experiences is assessed on a 2-point scale (true or false), with any items endorsed then measuring distress on a 4-point scale (no distress, mild, moderate and severe distress).

The total score is achieved by adding up all true items, with ‘caseness’ being defined as a total score of 6 or more. This is most applicable to help-seeking mental health populations, where a symptom score of ≥ 6 has a sensitivity = 87% and specificity = 87% (Ising et al., 2012).

5.9 Psychotic-Like Experiences: Prevalence

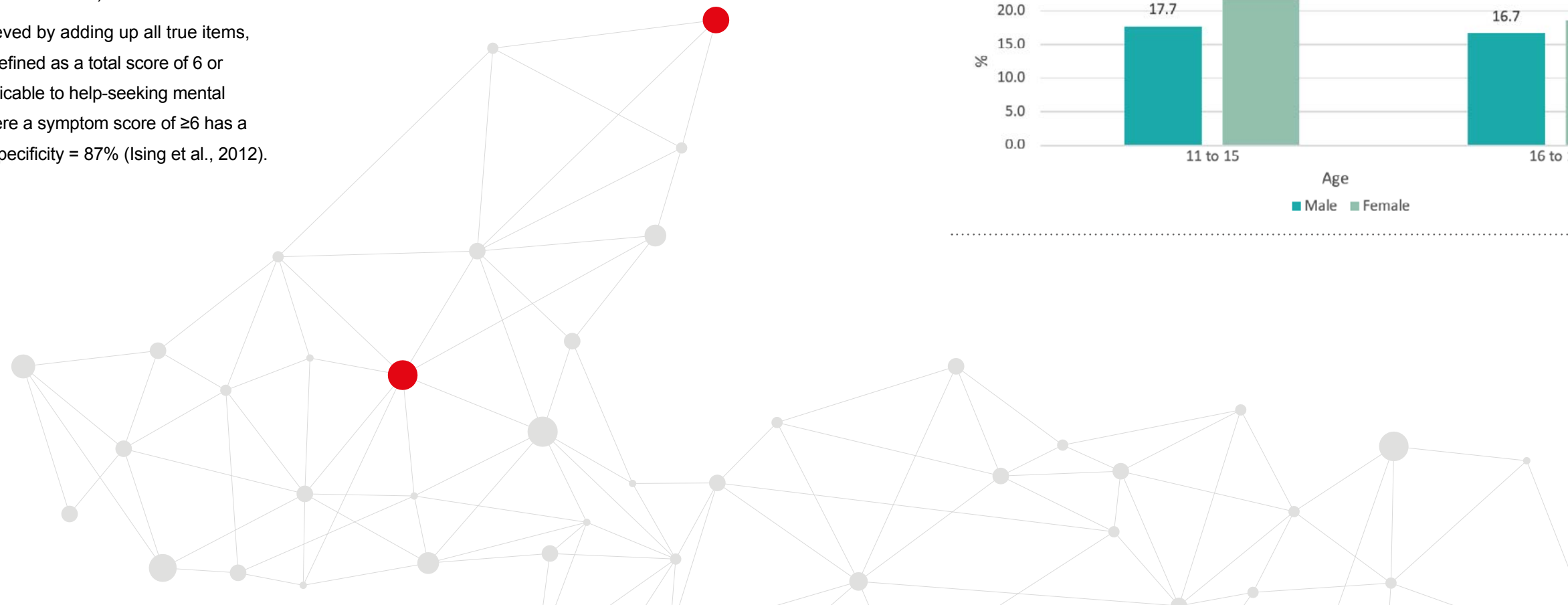
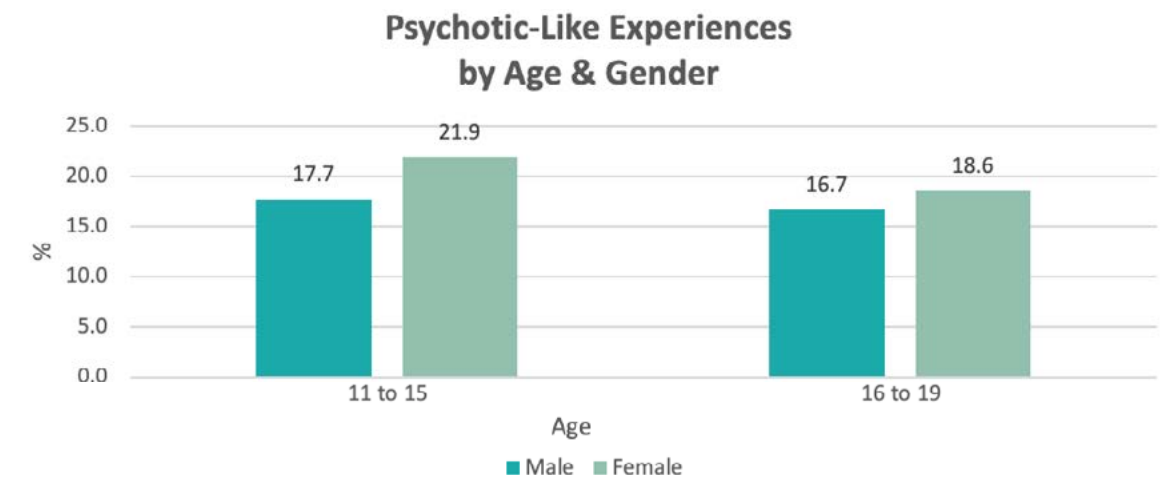
18.7% of participants reported six or more symptoms and therefore would screen ‘positive’ for prodromal psychosis using the PQ-16. There were no significant differences for the total number of PQ-16 items endorsed between males (M = 2.71, SD = 3.14) and females (M = 3.14, SD = 3.50). The most commonly endorsed symptom was déjà vu (35%) and getting extremely anxious when meeting people for the first time (31% of the sample). Conversely, only 8.7% stated that they had heard whispers or voices (Table 5.4).

The prevalence estimates for those at risk of psychotic-like experiences by age and gender are shown in Figure 5.3. There were no significant differences by age (19.9% of 11-15 year olds; 17.5% of 16-19 years ($\chi^2(1) = 1.19, p = .275$) or gender (males 17.2%, females 20.3% ($\chi^2(1) = 2.0, p = .158$)).

Table 5.4 Prevalence Estimates of Psychotic-Like Experiences by Gender

	Male n = 662	Female n = 631	Total N = 1293
I feel uninterested in the things I used to enjoy.	21.1%	23.6%	22.4%
I often seem to live through events exactly as they happened before (deja vu).	35.2%	36.0%	35.6%
I sometimes smell or taste things that other people can't smell or taste.	16.9%	18.9%	17.9%
I often hear unusual sounds like banging, clicking, hissing, clapping or ringing in my ears.	24.3%	26.9%	25.6%
I have been confused at times whether something I experienced was real or imaginary.	22.8%	28.4%	25.5%
When I look at a person, or look at myself in a mirror, I have seen the face change right before my eyes.	4.1%	7.8%	5.9%
I get extremely anxious when meeting people for the first time.	23.4%	39.3%	31.2%
I have seen things that other people apparently can't see.	9.2%	8.9%	9.0%
My thoughts are sometimes so strong that I can almost hear them.	14.8%	17.7%	16.2%
I sometimes see special meanings in advertisements, shop windows, or in the way things are arranged around me.	14.2%	13.0%	13.6%
Sometimes I have felt that I'm not in control of my own ideas or thoughts.	13.9%	20.0%	16.9%
Sometimes I feel suddenly distracted by distant sounds that I am not normally aware of.	16.2%	17.9%	17.0%
I have heard things other people can't hear like voices of people whispering or talking.	8.5%	9.0%	8.7%
I often feel that others have it in for me.	13.4%	15.5%	14.5%
I have had the sense that some person or force is around me, even though I could not see anyone.	9.5%	13.2%	11.3%
I feel that parts of my body have changed in some way, or that parts of my body are working differently than before.	23.3%	18.1%	20.7%

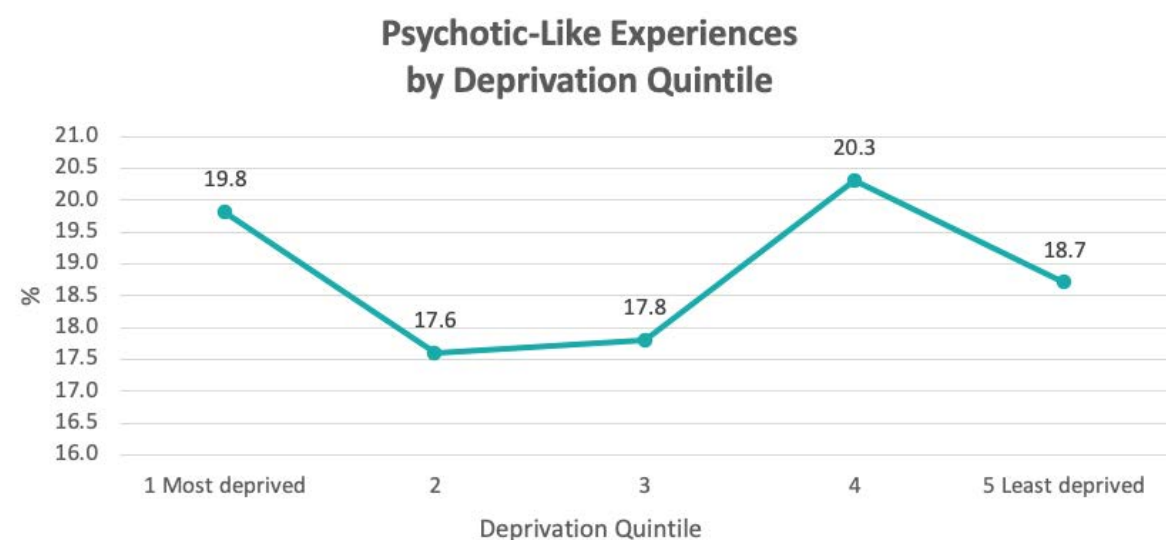
Figure 5.2 Autism Spectrum Disorders by Deprivation Quintile



5.10 Psychotic-Like Experiences: Deprivation

There were no significant differences in the risk of psychotic-like experiences by deprivation quintile (Figure 5.4).

Figure 5.4 Psychotic-Like Experiences by Deprivation Quintile



5.11 Psychotic-Like Experiences: Overview & Key Statistics

In this study, 18.7% scored above the threshold of six or greater. This figure is in keeping with the previous literature, and suggests that screening and follow-up could be considered in an expanding service utilising the PQ-16. This is the first application of the PQ-16 to a well-characterised population sample of young people. The only comparable study was completed in Glasgow (McDonald et al., 2019) and produced a figure of 52% but this was a less representative opt-in sample which we can assume was enriched (those who were worried about their mental health chose to join).

There are arguable benefits to screening for the ARMS within educational settings, and making young people aware of services available to them if they are experiencing symptoms. This is especially the case as many of those individuals who scored above threshold on the PQ-16 also scored highly on other scales: such

comorbidity has previously been noted in educational settings (Chen et al., 2014; Kelleher et al., 2012; Kim et al., 2018).

It is key that individuals who are identified as at-risk are able to access appropriate psychological therapies and ensuring educational settings have adequate resources to provide appropriate care and support is necessary when planning screening within these settings (Levitt, Saka, Romanelli, & Hoagwood, 2007).

The PQ-16 is used most frequently for screening in educational settings (Howie, Potter, Shannon, Davidson, & Mulholland, 2019). It has been suggested that the standard cut-off score of ≥ 6 , which is based on “help-seeking” or secondary care populations, may prove to be over-inclusive for non-help-seeking populations. Chen et al. (2016) recommended the addition of the application of ≥ 9 on the distress score as the optimal cut-off for identifying those at-risk in a college population. Kim et al. (2018) found a cut-off score of ≥ 7 produced an optimal

cut-off point for further assessment in a college population. A systematic review (Savill et al., 2018) also suggests that the distress score may improve accuracy of the PQ-16.

Reasonable concerns have been expressed that labelling individuals with a ‘diagnosis’ of ARMS (Kamens, Elkins, & Robbins, 2017) may be stigmatising as well as potentially over-medicalising. Byrne and Morrison (2010) found that young people reported being reluctant to report their psychotic-like experiences due to fear of negative reactions. Further work is required to understand the possibility of stigma being caused through screening programmes and what can be done to reduce stigmatisation (Yung et al., 2012).

- Nearly one in five (18.7%) adolescents reported six or more symptoms on a screening questionnaire for psychotic like experiences. Although relatively high in Northern Ireland, this was broadly comparable to other international studies, confirming that such experiences are fairly common.
- While only a minority are likely go on to develop a psychotic disorder, psychotic experiences also often act as markers for non-psychotic mental health disorders such as depression and anxiety, suggesting the need for further assessment.
- There were no significant differences by age (19.9% of 11-15 year olds vs 17.5% of 16-19 year olds) or gender (17.2% of males vs 20.3% of females).
- There were no statistically significant differences in risk of psychotic-like experiences by deprivation quintile.

5.12 Eating Disorders: Background

Disturbances in eating behaviours, typically characterised as a refusal to eat or eating excessively to satisfy psychological or emotional needs, often emerge for the first time in mid-adolescence or young adulthood (Fairburn, Welch, Doll, Davies, & O’Connor, 1997; Leung et al., 2009). Disordered eating behaviours during this

critical and sensitive developmental period are usually less common when compared to other emotional and behaviours difficulties. For example, in the 2017 Mental Health of Children and Young People in England survey (Sadler et al., 2018), 0.4% of adolescents aged 5-19 years met the criteria for an eating disorder compared to 8.1% of individuals in the same age range who met the criteria for an emotional disorder (i.e., an anxiety, depressive, mania or bipolar affective disorder). Rates were higher for females than males (0.4% vs 0.1%) and 17-18 year olds than 11-16 year olds (0.8% vs 0.6%). In total, 1.6% of young women aged 17-19 years in the 2017 English survey met the criteria for an eating disorder.

However, the prevalence of eating disorders varies widely depending on the measure and thresholds used and population studied. For example, using Morgan et al.’s (1999) five-item screening scale, the prevalence of eating disorders has been identified as: 21% in a sample of Finnish 8th and 9th grade high school students aged 14-16 years, and using a threshold of ≥ 1 ; 16.5% in a sample of Swedish girls and 4.8% in a sample of Swedish boys with an average age of 16 years and using a threshold of ≥ 2 (Hansson, Daukantaitė, & Johnsson, 2015); 26.9% in a sample of Chinese adolescents and young adults with an average age of 14.9 years, using the threshold of ≥ 2 (Leung et al., 2009); and 21.9% in a sample of German adolescents aged 11-17 years and using a threshold of ≥ 2 (Hölling & Schlack, 2007). In the German sample there was a statistically significant gender difference (28.9% of girls compared to 15.2% of boys met the threshold), and while the proportion of students meeting the threshold increased with age for girls, the opposite trend was observed for boys (Hölling & Schlack, 2007). Moreover, the prevalence of probable eating disorders was considerably higher in adolescents and young adults of low socioeconomic status compared to high socioeconomic status (27.6% compared to 15.6%).

Patterns of disordered eating are commonly associated with considerable functional impairment and high levels

of psychological comorbidity, including suicidal ideation, even in the early stages of the condition (Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011). Anorexia nervosa is a life-threatening disorder due to the effects of weight loss and starvation on the body and brain. Indeed, a review of nearly fifty years of research confirms that anorexia has the highest mortality rate of any mental disorder (Arcelus, Mitchell, Wales, & Nielsen, 2011).

Although individuals who experience eating difficulties often try to conceal their socially inappropriate behaviour, identifying disordered eating patterns soon after onset is important to help prevent the development of a serious illness and to improve the prognosis of recovery (Hautala et al., 2009; Lichtenstein, Hemmingsen, & Støving, 2017; National Institute for Health and Care Excellence, 2017; Royal College of Psychiatrists, 2019).

5.13 Eating Disorders: Measure

The SCOFF questionnaire is a five-item screening scale used to assess the core features of anorexia nervosa and bulimia nervosa (Morgan et al., 1999), as follows:

- (1) induced vomited (do you make yourself **Sick** because you feel uncomfortably full?);
- (2) loss of control (do you worry you have lost **Control** over how much you eat?);
- (3) significant weight loss (have you recently lost more than **One** stone in a 3-month period?);
- (4) distorted body image (do you believe yourself to be **Fat** when others say you are too thin?); and
- (5) preoccupation with food (would you say that **Food** dominates your life?).

Items are binary scored (1 if behaviour or symptom is present; 0 if it is absent). Using data from a clinical sample, Morgan et al. (1999) reported that a threshold

of ≥ 2 on the eating disorders scale had high sensitivity (100%) – meaning that this screening scale was able to correctly identify all individuals who had a probable eating disorder when compared the results obtained from a gold standard diagnostic assessment – and good specificity (87.5%) – meaning that it also a useful tool for correctly identifying those individuals who do not have an eating disorder. (It is important to acknowledge that the name of the scale, although it is widely used and is an acronym of its five items, does appear to be somewhat insensitive).

Thus, this eating disorders scale is a useful screening tool to identify individuals who may be experiencing a pattern of disordered eating and who may require a rigorous clinical assessment to explore their eating-related difficulties in more depth. Although young people may demonstrate differing capacities to report, describe, understand, and appreciate the meaning of their disturbed eating behaviours and thoughts (Workgroup for Classification of Eating Disorders in Children and Adolescents (WCEDCA), 2007), self-reported eating habits in adolescence are suggested to be reliable indicators of abnormal eating patterns. It is considered an appropriate screening instrument for both genders in mid-adolescent populations. Although some studies involving adolescents have lowered the threshold to ≥ 1 (Hautala et al., 2009), many others recommend applying the standard threshold score of ≥ 2 to detect potentially problematic eating difficulties during this developmental period (Leung et al., 2009; Lichtenstein et al., 2017; Muro-Sans, Amador-Campos, & Morgan, 2008).

5.14 Eating Disorders: Prevalence

The eating behaviours measured by the eating disorders scale ranged from 7.3% to 17.9% (Table 5.5).

Table 5.5 Proportion of adolescents and young adults endorsing the eating disorders scale (n=1299)

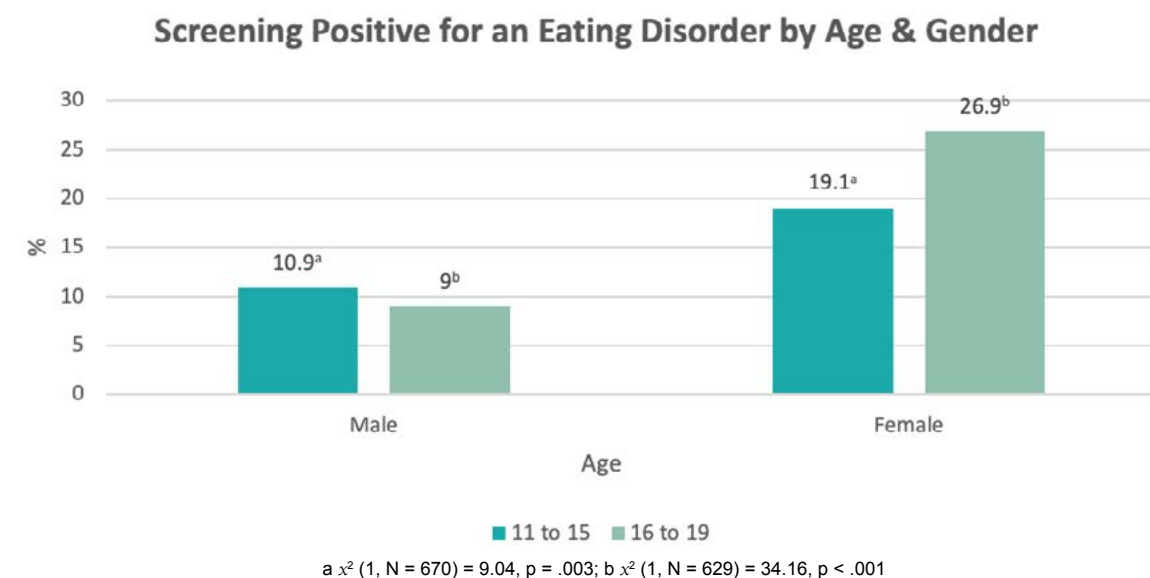
Item endorsement	All (n=1299) n (%)	Gender*		Age	
		Males (n=662) n (%)	Females (n=631) n (%)	11-15 (n=670) n (%)	16-19 (n=629) n (%)
Do you make yourself Sick because you feel uncomfortably full?	94 (7.3%)	39 (5.9%)	55 (8.7%)	39 (5.8%)	55 (8.7%)
Do you worry you have lost Control over how much you eat?	233 (17.9%)	75 (11.3%)	158 (25.0%)	114 (17.0%)	119 (18.9%)
Have you recently lost more than One stone in a 3-month period?	106 (8.2%)	65 (9.8%)	41 (6.5%)	49 (7.3%)	57 (9.1%)
Do you believe yourself to be Fat when others say you are too thin?	200 (15.5%)	58 (8.8%)	142 (22.5%)	104 (15.5%)	96 (15.3%)
Would you say that Food dominates your life?	135 (10.4%)	44 (6.6%)	91 (14.4%)	63 (9.4%)	72 (11.4%)

*Note: Information on gender was missing for 6 cases

The percentage of the sample exceeding the cut-off scores for the screening measure was 16.24%, and there were significantly higher rates for females (22.9%) than males (10.0%: $\chi^2(1) = 39.09, p < .001$). There were no

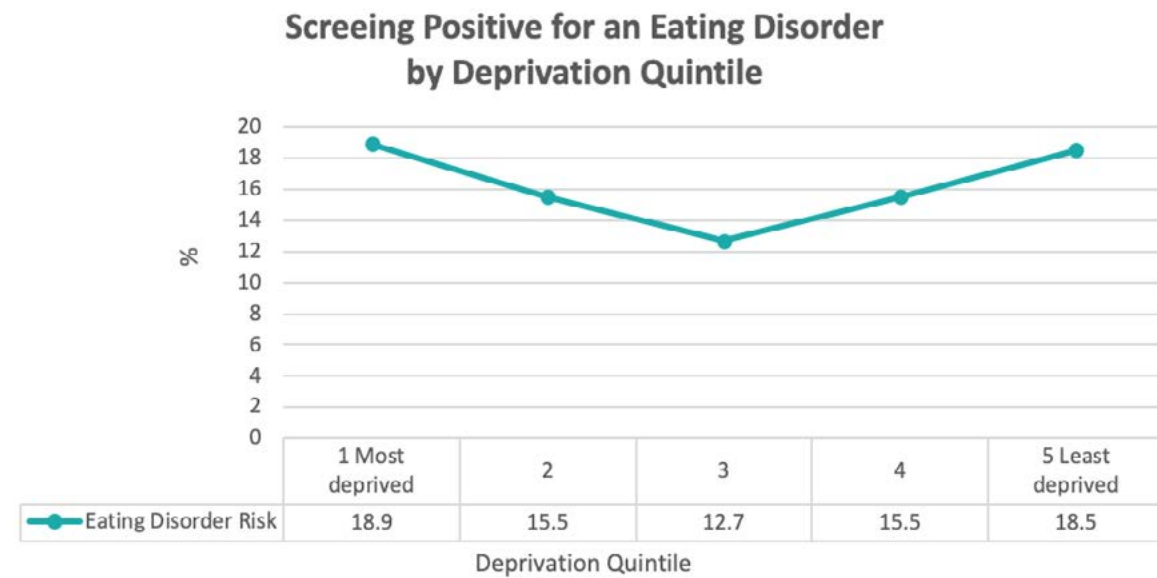
differences between the 11-15 and 16-19 age groups on screening positive on the eating disorders measure ($\chi^2(1) = 2.19, p = .139$). Rates of screening positive for an eating disorder by age and gender are presented in Figure 5.5.

Figure 5.5 Psychotic-Like Experiences by Deprivation Quintile



5.15 Eating Disorders: Deprivation

Screening positive on the screening measure was not significantly associated with deprivation $\chi^2(4) = 4.87, p = .301$ (Figure 5.6).

Figure 5.6 Screening Positive for an Eating Disorder by Deprivation Quintile

5.16 Eating Disorders: Overview & Key Statistics

Overall, the findings indicated that approximately 1 in 6 children and young people in Northern Ireland (16.2%) engaged in a pattern of disordered eating and associated behaviours that might indicate the need for further clinical assessment. This prevalence estimate appears to be comparable to those derived from school-based surveys conducted in other Western countries in recent years. Of note, however, is the finding that 1 in 14 young people surveyed (7.3%) reported engaging in induced vomiting, which is a potentially serious negative health behaviour, particularly if the young person is already underweight. Recent evidence suggests that the incidence of anorexia nervosa in young people, that is the number of new cases presenting to mental health treatment services, is increasing across the UK and Ireland (Petkova et al., 2019). The number of hospital admissions relating to treatment of eating disorders has also increased in recent years (NHS Digital, 2019). Collectively, these findings may suggest that the number of cases of eating disorders in the population is increasing or it may also be that services are working better to identify and treat eating disorders

earlier in the course of the illness. Continual monitoring of the prevalence of probable eating disorders among young people in the general population is an important step to establishing the extent of the problem to enable local services to plan ahead to provide optimal treatment pathways for young people in need of support for this potentially serious illness.

- 1 in 6 children and young people in Northern Ireland (16.2%) engaged in a pattern of disordered eating and associated behaviours that might indicate the need for further clinical assessment.
- 1 in 14 young people surveyed (7.3%) reported engaging in induced vomiting, which is a potentially serious negative health behaviour, particularly if the young person is already underweight.
- Females were more likely than males to be at risk of an eating disorder (22.9% vs 10.0%).
- There were no differences between the 11-15 and 16-19 age groups.
- Screening positive on the eating disorder measure was not significantly associated with deprivation.

5.17 References

- Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief "red flags" for autism screening: the short autism spectrum quotient and the short quantitative checklist in 1,000 cases and 3,000 controls. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(2), 202-212. e207.
- Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with anorexia nervosa and other eating disorders: a meta-analysis of 36 studies. *Archives of General Psychiatry*, 68(7), 724-731.
- Baron-Cohen, S., Scott, F. J., Allison, C., Williams, J., Bolton, P., Matthews, F. E., & Brayne, C. (2009). Prevalence of autism-spectrum conditions: UK school-based population study. *The British Journal of Psychiatry*, 194(6), 500-509.
- Beavan, V., Read, J., & Cartwright, C. (2011). The prevalence of voice-hearers in the general population: a literature review. *Journal of Mental Health*, 20(3), 281-292.
- Bradford, S., & Rickwood, D. (2012). Psychosocial assessments for young people: a systematic review examining acceptability, disclosure and engagement, and predictive utility. *Adolescent Health, Medicine and Therapeutics*, 3, 111.
- Byrne, R., & Morrison, A. P. (2010). Young people at risk of psychosis: A user-led exploration of interpersonal relationships and communication of psychological difficulties. *Early Intervention in Psychiatry*, 4(2), 162-168. doi: <https://doi.org/10.1111/j.1751-7893.2010.00171.x>
- Chen, F., Wang, L., Heeramun-Aubeeluck, A., Wang, J., Shi, J., Yuan, J., & Zhao, X. (2014). Identification and characterization of college students with attenuated psychosis syndrome in China. *Psychiatry Research*, 216(3), 346-350.
- Fairburn, C. G., Welch, S. L., Doll, H. A., Davies, B. A., & O'Connor, M. E. (1997). Risk factors for bulimia nervosa: A community-based case-control study. *Archives of General Psychiatry*, 54(6), 509-517.
- Fusar-Poli, P., Bonoldi, I., Yung, A. R., Borgwardt, S., Kempton, M. J., Valmaggia, L., . . . McGuire, P. (2012). Predicting psychosis: meta-analysis of transition outcomes in individuals at high clinical risk. *Archives of General Psychiatry*, 69(3), 220-229.
- Fusar-Poli, P., Nelson, B., Valmaggia, L., Yung, A. R., & McGuire, P. K. (2014). Comorbid depressive and anxiety disorders in 509 individuals with an at-risk mental state: impact on psychopathology and transition to psychosis. *Schizophrenia Bulletin*, 40(1), 120-131.

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry*, 10(1), 113.

Hansson, E., Daukantaitė, D., & Johnsson, P. (2015). SCOFF in a general Swedish adolescent population. *Journal of Eating Disorders*, 3(1), 48.

Hautala, L., Junnila, J., Alin, J., Grönroos, M., Maunula, A.-M., Karukivi, M., . . . Saarijärvi, S. (2009). Uncovering hidden eating disorders using the SCOFF questionnaire: Cross-sectional survey of adolescents and comparison with nurse assessments. *International Journal of Nursing Studies*, 46(11), 1439-1447.

Hölling, H., & Schlack, R. (2007). Eating disorders in children and adolescents. First results of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS). *Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, 50(5-6), 794-799.

Howie, C., Potter, C., Shannon, C., Davidson, G., & Mulholland, C. (2019). Screening for the at-risk mental state in educational settings: A systematic review. *Early Intervention in Psychiatry*.

Hyman, S. L., Levy, S. E., & Myers, S. M. (2020). Identification, evaluation, and management of children with autism spectrum disorder. *Pediatrics*, 145(1).

Ising, H. K., Veling, W., Loewy, R. L., Rietveld, M. W., Rietdijk, J., Dragt, S., . . . Linszen, D. H. (2012). The validity of the 16-item version of the Prodromal Questionnaire (PQ-16) to screen for ultra high risk of developing psychosis in the general help-seeking population. *Schizophrenia Bulletin*, 38(6), 1288-1296.

Kamens, S. R., Elkins, D. N., & Robbins, B. D. (2017). Open letter to the DSM-5. *Journal of Humanistic Psychology*, 57(6), 675-687. doi: <https://doi.org/10.1177/0022167817698261>

Kelleher, I., Murtagh, A., Molloy, C., Roddy, S., Clarke, M. C., Harley, M., & Cannon, M. (2012). Identification and characterization of prodromal risk syndromes in young adolescents in the community: a population-based clinical interview study. *Schizophrenia Bulletin*, 38(2), 239-246.

Kim, S.-W., Chung, Y.-C., Kang, Y.-S., Kim, J.-K., Jang, J.-E., Jhon, M., . . . Yoon, J.-S. (2018). Validation of the Korean version of the 16-Item Prodromal Questionnaire in a non-help-seeking college population. *Psychiatry Investigation*, 15(2), 111.

Leavey, G., Rothi, D., & Paul, R. (2011). Trust, autonomy and relationships: the help-seeking preferences of young people in secondary level schools in London (UK). *Journal of Adolescence*, 34(4), 685-693.

- Leung, S. F., Lee, K. L., Lee, S. M., Leung, S. C., Hung, W. S., Lee, W. L., . . . Wong, H. K. (2009). Psychometric properties of the SCOFF questionnaire (Chinese version) for screening eating disorders in Hong Kong secondary school students: A cross-sectional study. *International Journal of Nursing Studies*, 46(2), 239-247.
- Levitt, J. M., Saka, N., Romanelli, L. H., & Hoagwood, K. (2007). Early identification of mental health problems in schools: The status of instrumentation. *Journal of School Psychology*, 45(2), 163-191.
- Lichtenstein, M. B., Hemmingsen, S. D., & Støving, R. K. (2017). Identification of eating disorder symptoms in Danish adolescents with the SCOFF Questionnaire. *Nordic Journal of Psychiatry*, 71(5), 340-347.
- Linscott, R., & Van Os, J. (2013). An updated and conservative systematic review and meta-analysis of epidemiological evidence on psychotic experiences in children and adults: on the pathway from proneness to persistence to dimensional expression across mental disorders. *Psychological Medicine*, 43(6), 1133-1149.
- Lord, C., Risi, S., DiLavore, P. S., Shulman, C., Thurm, A., & Pickles, A. (2006). Autism from 2 to 9 years of age. *Arch Gen Psychiatry*, 63(6), 694-701.
- McConkey, R. (2020). The rise in the numbers of pupils identified by schools with autism spectrum disorder (ASD): a comparison of the four countries in the United Kingdom. *Support for Learning*, 35(2), 132-143.
- McDonald, M., Christoforidou, E., Van Rijsbergen, N., Gajwani, R., Gross, J., Gumley, A. I., . . . Uhlhaas, P. J. (2019). Using online screening in the general population to detect participants at clinical high-risk for psychosis. *Schizophrenia Bulletin*, 45(3), 600-609.
- Morgan, J. F., Reid, F., & Lacey, J. H. (1999). The SCOFF questionnaire: assessment of a new screening tool for eating disorders. *BMJ*, 319(7223), 1467-1468.
- Muro-Sans, P., Amador-Campos, J. A., & Morgan, J. F. (2008). The SCOFF-c: Psychometric properties of the Catalan version in a Spanish adolescent sample. *Journal of Psychosomatic Research*, 64(1), 81-86.
- National Institute for Health and Care Excellence. (2012). Autism spectrum disorder in adults: diagnosis and management. Clinical guideline [CG142].
- National Institute for Health and Care Excellence. (2017). Eating disorders: recognition and treatment. NICE guideline [NG69]. Retrieved from <https://www.nice.org.uk/guidance/ng69>
- NHS. (2018). NHS Choices: NHS Screening. Retrieved from <https://www.nhs.uk/conditions/nhs-screening/>
- NHS Digital. (2019). Incidence of anorexia nervosa in young people in the UK and Ireland: a national surveillance study. Retrieved from <https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2019-supplementary-information-files/hospital-admissions-for-eating-disorders>
- Obuchowski, N. A., Graham, R. J., Baker, M. E., & Powell, K. A. (2001). Ten criteria for effective screening: their application to multislice CT screening for pulmonary and colorectal cancers. *American Journal of Roentgenology*, 176(6), 1357-1362.
- Petkova, H., Simic, M., Nicholls, D., Ford, T., Prina, A. M., Stuart, R., . . . Eisler, I. (2019). Incidence of anorexia nervosa in young people in the UK and Ireland: a national surveillance study. *BMJ Open*, 9(10), e027339.
- Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-journal for the Advancement of Mental Health*, 4(3), 218-251.
- Robins, D. L., Casagrande, K., Barton, M., Chen, C.-M. A., Dumont-Mathieu, T., & Fein, D. (2014). Validation of the modified checklist for autism in toddlers, revised with follow-up (M-CHAT-R/F). *Pediatrics*, 133(1), 37-45.
- Royal College of Psychiatrists. (2019). Position statement on early intervention for eating disorders. Retrieved from https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/position-statements/ps03_19.pdf?sfvrsn=b1283556_2
- Rydzewska, E., Hughes-McCormack, L. A., Gillberg, C., Henderson, A., MacIntyre, C., Rintoul, J., & Cooper, S.-A. (2019). Age at identification, prevalence and general health of children with autism: observational study of a whole country population. *BMJ Open*, 9(7), e025904.
- Sadler, K., Vizard, T., Ford, T., Marchesell, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). Mental health of children and young people in England, 2017. London: NHS Digital.
- Savill, M., D'Ambrosio, J., Cannon, T. D., & Loewy, R. L. (2018). Psychosis risk screening in different populations using the Prodromal Questionnaire: A systematic review. *Early Intervention in Psychiatry*, 12(1), 3-14.
- Swanson, S. A., Crow, S. J., Le Grange, D., Swendsen, J., & Merikangas, K. R. (2011). Prevalence and correlates of eating disorders in adolescents: Results from the national comorbidity survey replication adolescent supplement. *Archives of General Psychiatry*, 68(7), 714-723.
- Williams, J. G., Higgins, J. P., & Brayne, C. E. (2006). Systematic review of prevalence studies of autism spectrum disorders. *Archives of disease in childhood*, 91(1), 8-15.
- Workgroup for Classification of Eating Disorders in Children and Adolescents (WCEDCA). (2007). Classification of child and adolescent eating disturbances. *International Journal of Eating Disorders*, 40, S117-S122.
- Yung, A. R., Woods, S. W., Ruhrmann, S., Addington, J., Schultze-Lutter, F., Cornblatt, B. A., . . . Borgwardt, S. (2012). Whither the attenuated psychosis syndrome? *Schizophrenia Bulletin*, 38(6), 1130-1134.
- Yung, A. R., Yung, A. R., Pan Yuen, H., McGorry, P. D., Phillips, L. J., Kelly, D., . . . Killackey, E. (2005). Mapping the onset of psychosis: the comprehensive assessment of at-risk mental states. *Australian & New Zealand Journal of Psychiatry*, 39(11-12), 964-971.
- Zachrisson, H. D., Rödje, K., & Mykletun, A. (2006). Utilization of health services in relation to mental health problems in adolescents: a population based survey. *BMC Public Health*, 6(1), 1-7.

6 Self-Injury & Suicidal Thoughts or Attempts

6.1 Background

Recent evidence indicates that, among those aged 15–19 years, suicide is the second leading cause of death worldwide (World Health Organisation, 2017), and the leading cause of death among those aged 5–19 years in England and Wales (Office for National Statistics, 2016). Meta-analysis findings show the global aggregate lifetime prevalence of suicidal attempts, as recorded from studies of 686,672 children and adolescents between 1989 and 2018, to be 6%, and the aggregate lifetime prevalence of suicidal ideation (i.e. thoughts about suicide) to be 18% (Lim et al., 2019). In the United Kingdom, findings from the Avon Longitudinal Study of Parents and Children (ALSPAC) population-based birth cohort, indicate that the lifetime prevalence of suicidal attempts and ideation, at age 16 years, is 6.8% and 9.6% respectively (Mars et al., 2019).

An array of factors has been evidenced to increase risk for suicide among the young (e.g. socio-economic disadvantage, psychiatric problems such as depression, anxiety disorders and substance use problems, individual- and family-related risk factors including adverse childhood experiences, interpersonal difficulties, parental separation, divorce or death, parental mental disorder and family history of suicidal behaviour (Hawton, Saunders, & O'Connor, 2012; Skegg, 2005). Nonetheless, self-injury has been shown to be particularly associated with suicide. Defined as an act of intentionally causing harm to one's self, irrespective of the type, motive or suicidal intent (Hawton et al., 2003; National Collaborating Centre for Mental Health, 2012), self-injury has been shown to be one of the strongest predictors of suicide (Guan, Fox, & Prinstein, 2012; Ribeiro et al., 2016; Scott, Pilkonis, Hipwell, Keenan, & Stepp, 2015) and to share many of the same risk factors (Hawton et al., 2012; Kapur et al., 2013).

In the UK, 12% of 16 year olds with suicidal thoughts and 12% of 16 year olds who had engaged in non-suicidal self-injury reported having attempted suicide for the first

time by follow-up at 21 years of age (Mars et al., 2019). Transition from suicidal thoughts to suicide attempts has been shown to be strongly predicted by self-injury among adolescents (odds ratio [OR] 2.78, 95% CI 1.35–5.74; $p=0.0059$) (Mars et al., 2019). Moreover, self-injury has been shown, not only, to elevate risk of future suicide (by 30–100 times in the following year) (Cooper et al., 2005; Hawton et al., 2015; Whitlock et al., 2013), but early mortality from all causes of death (with a mean of 40 years of life lost to external causes in those who self-injure (Bergen et al., 2012)). With an estimated lifetime prevalence of 13.7% among children and adolescents globally (Lim et al., 2019), and an estimated lifetime prevalence of 11.9% among 16-year-olds in the UK (Mars et al., 2014), self-injury has recently been shown to be increasing among young people in the UK (McManus, Bebbington, Jenkins, & Brugha, 2016).

Previously, the suicide rate in Northern Ireland has been shown to be higher than that reported in the rest of the UK (NISRA, 2017; O'Neill et al., 2018; Samaritans, 2017) although the figures are currently being re-examined (NISRA, 2020). However, while prevalence rates of 7.7%, 31% and 19.6% have been recorded for suicide attempts, suicide ideation and self-injury respectively among NI university students (age range 18–49 years; O'Neill et al., 2018), limited data informs the prevalence of these important phenomena for children and adolescents in the region. In the Young Life and Times Survey (2013), 13% of 16 year olds reported they had, at some point in the past, seriously thought about taking an overdose or harming themselves, and 6% had thought about this in the past month. Thirteen percent of young people also said they had self-harmed with 5% having done so once and 8% more than once.

Given that suicidal thoughts or attempts and self-injury represent reliable signals for future fatal incidents of suicidal behaviour among the young and that suicidal or self-injurious behaviour are associated with such a broad array of other problems (Garlow et al., 2008; Goldman-

Mellor et al., 2014; Hom, Stanley, & Joiner Jr, 2015), the European Commission and the WHO have understandably encouraged researchers to increase the availability of data on these phenomena, in order to prevent it (Iacobucci, 2014; World Health Organisation, 2008).

6.2 Measures

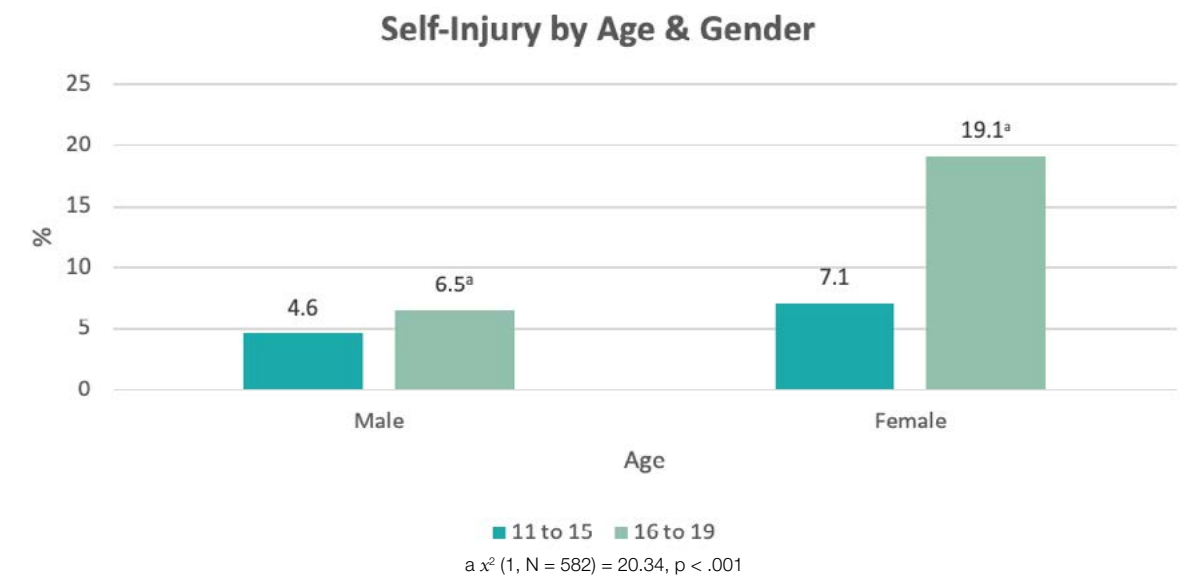
Self-injury and suicidal thoughts or attempts were assessed using the selected questions from the Deliberate Self Harm Inventory (DSHI; Gratz, 2001) and the Suicide Behaviours Questionnaire-Revised (SBQR; Osman, Bagge, Guitierrez, LKonick, & Barrios, 2001), (1) "Have you ever intentionally (i.e. on purpose) cut your wrist, arms, or other area(s) of your body (without intending to kill yourself)? (or burned yourself with a cigarette, lighter or match; carved words, pictures, designs or other marks into your skin" and (2) "Have you ever thought about or attempted to kill yourself?". Participants screened positive for self-injury and suicidal thoughts or attempts by answering 'Yes' to the questions.

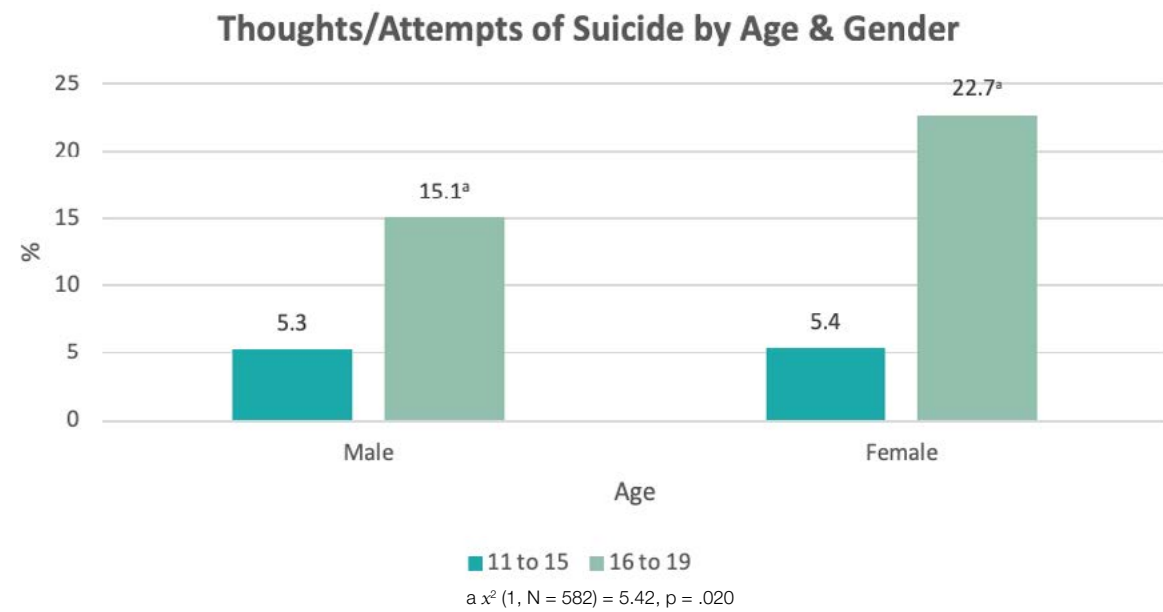
6.3 Results: Prevalence

9.4% of 11–19 year olds answered yes to injuring themselves on purpose, 87.4% said no and 3.2% preferred not to say. 12.1% answered yes to having thought about or attempted to kill themselves, 83.9% said no and 4.0% preferred not to say. Of those that said yes, 33.8% indicated it had been a passing thought, 60.5% that they had made a plan (6.6% of all 11–19 year olds), and 3.5% that they had made an attempt (0.4% of all 11–19 year olds). A further 2.1% preferred not to say.

Significantly more females endorsed the self-injury question (13.2%) compared to males (5.5%: $\chi^2(1)=20.50$, $p < .001$), and also the thoughts or attempt question (female = 14.2%, male = 10.0%: $\chi^2(1)=4.95$, $p = .026$). Self-injury was more common in the 16 to 19 year old group (13.0%) than the 11 to 15 year old group (5.9%: $\chi^2(1)=17.88$, $p < .001$) and also for thoughts or attempt (11–15 years = 5.4%, 16–19 years = 19.0%: $\chi^2(1)=51.97$, $p < .001$). Rates of self-injury and suicidal thoughts or attempts by age and gender are reported in Figure 6.1.

Figure 6.1 Self-Injury and Thoughts/Attempts of Suicide by Age and Gender

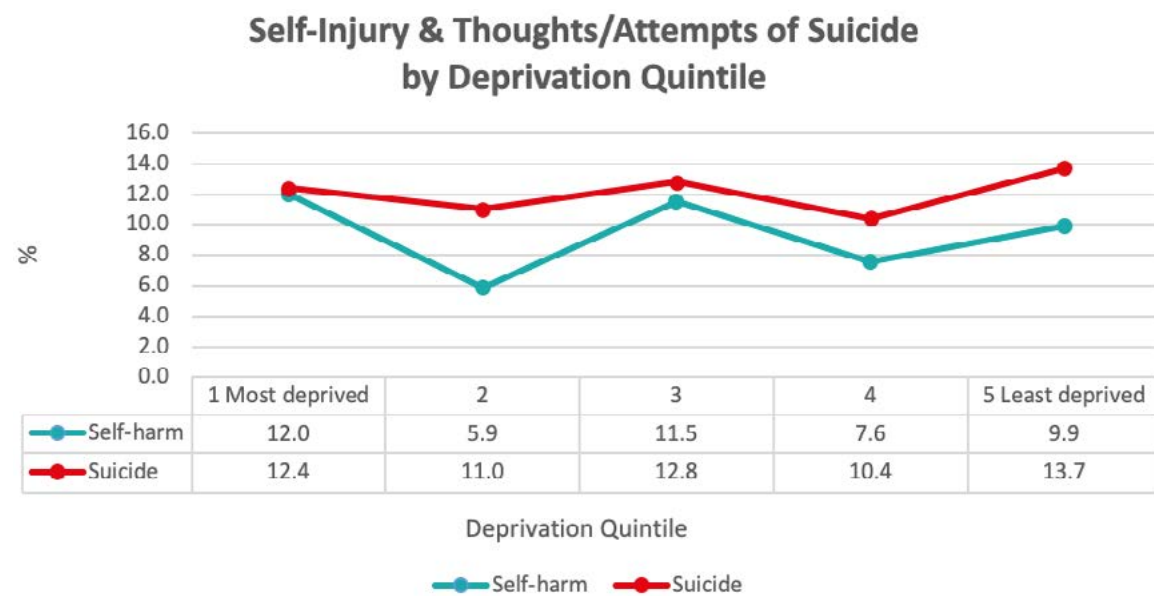




6.4 Results: Deprivation

Screening positive for self-injury ($\chi^2(4) = 7.04, p = .134$) or ideation or attempt ($\chi^2(4) = 1.71, p = .789$) on the screening questions was not significantly associated with deprivation (Figure 6.2).

Figure 6.1 Self-Injury and Thoughts/Attempts of Suicide by Age and Gender

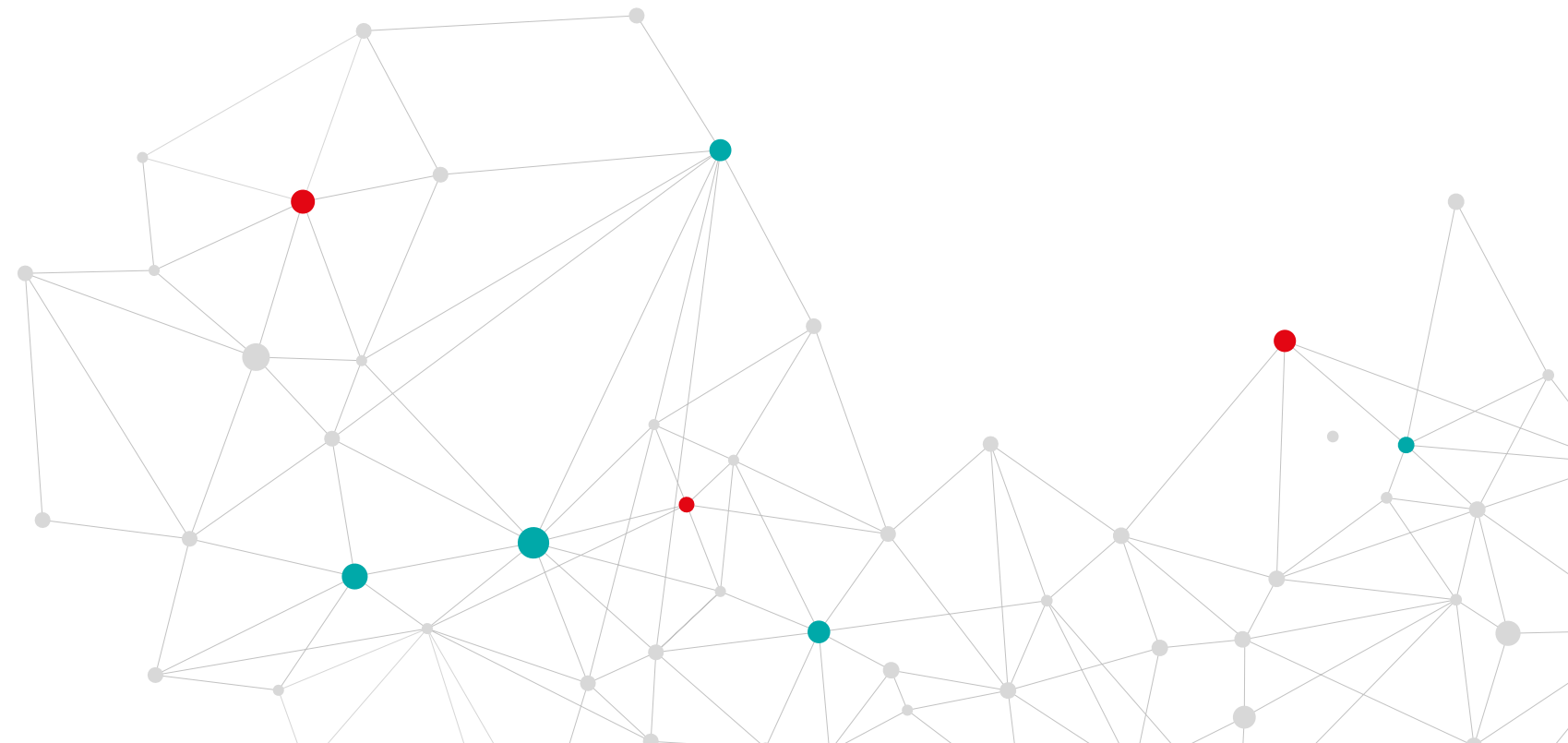


6.5 Overview & Key Statistics

Findings from the Youth Wellbeing NI Survey indicate that 9.4% of 11-19 year olds in NI have engaged in self-injurious behaviour and 12.1% have thought about or attempted suicide, with 6.6% of 11-19 year olds having made a plan and 3.5% having made an attempt. Compared to rates of self-injury reported in other studies (i.e. 11.9-13.7%; Lim et al., 2019; Mars et al., 2014), the rate of self-injury among boys and girls in Northern Ireland aged 11-15 years (4.6% & 6.5% respectively) and boys aged 16-19 years (7.1%) was lower. However, the rate of self-injury among girls aged 16-19 years (19.1%) was considerably higher. Overall, rates of suicidal ideation or attempted suicide were similar to those reported in the Young Life and Times Survey (13%; 2013) but lower in boys in Northern Ireland (~5%) compared to rates reported in other studies (i.e. ideation or attempt ~6%-18%; Lim et al., 2019; Mars et al., 2014). However, while the rate of ideation or attempted suicide among girls aged 11-15 years (15.1%) was consistent with extant findings, the rate recorded among girls aged 16-19 years (22.7%) was again higher. The current findings for older females however

were consistent with recent data on the occurrence of self-injury and suicidal ideation or behaviour among university students in Northern Ireland (O'Neill et al., 2018).

- 9.4% of 11-19 year olds reported self-injurious behaviour.
- 12.1% of 11-19 year olds reporting thinking about or attempting suicide.
- Significantly more females than males endorsed both the self-injury question (13.2% vs 5.5%) and the suicide ideation or attempt question (14.2% vs 10.0%).
- Rates were high in the 16-19 year old group than the 11-15 year old group for both self-injury (13% vs 5.9%) and suicide ideation or attempt (19% vs 5.4%).
- The rates of self-injury among girls aged 16-19 years was much higher than findings from other international studies.
- Screening positive for self-injury, suicidal thoughts or attempts was not significantly associated with deprivation.



6.6 References

- Bergen, H., Hawton, K., Waters, K., Ness, J., Cooper, J., Steeg, S., & Kapur, N. (2012). Premature death after self-harm: a multicentre cohort study. *The Lancet*, 380(9853), 1568-1574.
- Cooper, J., Kapur, N., Webb, R., Lawlor, M., Guthrie, E., Mackway-Jones, K., & Appleby, L. (2005). Suicide after deliberate self-harm: a 4-year cohort study. *American Journal of Psychiatry*, 162(2), 297-303.
- Garlow, S. J., Rosenberg, J., Moore, J. D., Haas, A. P., Koestner, B., Hendin, H., & Nemeroff, C. B. (2008). Depression, desperation, and suicidal ideation in college students: results from the American Foundation for Suicide Prevention College Screening Project at Emory University. *Depression & Anxiety*, 25(6), 482-488.
- Goldman-Mellor, S. J., Caspi, A., Harrington, H., Hogan, S., Nada-Raja, S., Poulton, R., & Moffitt, T. E. (2014). Suicide attempt in young people: a signal for long-term health care and social needs. *JAMA Psychiatry*, 71(2), 119-127.
- Guan, K., Fox, K. R., & Prinstein, M. J. (2012). Nonsuicidal self-injury as a time-invariant predictor of adolescent suicide ideation and attempts in a diverse community sample. *Journal of Consulting & Clinical Psychology*, 80(5), 842.
- Hawton, K., Bergen, H., Cooper, J., Turnbull, P., Waters, K., Ness, J., & Kapur, N. (2015). Suicide following self-harm: findings from the multicentre study of self-harm in England, 2000–2012. *Journal of Affective Disorders*, 175, 147-151.
- Hawton, K., Hall, S., Simkin, S., Bale, L., Bond, A., Codd, S., & Stewart, A. (2003). Deliberate self-harm in adolescents: a study of characteristics and trends in Oxford, 1990–2000. *Journal of Child Psychology & Psychiatry*, 44(8), 1191-1198.
- Hawton, K., Saunders, K. E., & O'Connor, R. C. (2012). Self-harm and suicide in adolescents. *The Lancet*, 379(9834), 2373-2382.
- Hom, M. A., Stanley, I. H., & Joiner Jr, T. E. (2015). Evaluating factors and interventions that influence help-seeking and mental health service utilization among suicidal individuals: A review of the literature. *Clinical Psychology Review*, 40, 28-39.
- Iacobucci, G. (2014). WHO report says countries should do more to prevent suicides. In: British Medical Journal Publishing Group.
- Kapur, N., Gunnell, D., Hawton, K., Nadeem, S., Khalil, S., Longson, D., . . . Cooper, J. (2013). Messages from Manchester: pilot randomised controlled trial following self-harm. *The British Journal of Psychiatry*, 203(1), 73-74.
- Lim, K.-S., Wong, C. H., McIntyre, R. S., Wang, J., Zhang, Z., Tran, B. X., . . . Ho, R. C. (2019). Global lifetime and 12-month prevalence of suicidal behavior, deliberate self-harm and non-suicidal self-injury in children and adolescents between 1989 and 2018: a meta-analysis. *International Journal of Environmental Research & Public Health*, 16(22), 4581.
- Mars, B., Heron, J., Crane, C., Hawton, K., Kidger, J., Lewis, G., . . . Gunnell, D. (2014). Differences in risk factors for self-harm with and without suicidal intent: findings from the ALSPAC cohort. *Journal of Affective Disorders*, 168, 407-414.
- Mars, B., Heron, J., Klonsky, E. D., Moran, P., O'Connor, R. C., Tilling, K., . . . Gunnell, D. (2019). Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: a population-based birth cohort study. *The Lancet Psychiatry*, 6(4), 327-337.
- McManus, S., Bebbington, P., Jenkins, R., & Brugha, T. (2016). *Mental Health and Wellbeing in England: the Adult Psychiatric Morbidity Survey 2014*. London: NHS digital.
- National Collaborating Centre for Mental Health. (2012). *National Institute for Health and Clinical Excellence: Guidance. Self-harm: longer-term management*. Leicester, UK: The British Psychological Society & The Royal College of Psychiatrists.
- Northern Ireland Statistics and Research Agency (NISRA). (2017). *Suicide statistics*. Retrieved from <https://www.nisra.gov.uk/publications/suicide-statistics>
- O'Neill, S., McLafferty, M., Ennis, E., Lapsley, C., Bjourson, T., Armour, C., . . . Murray, E. (2018). Socio-demographic, mental health and childhood adversity risk factors for self-harm and suicidal behaviour in College students in Northern Ireland. *Journal of Affective Disorders*, 239, 58-65.
- Office for National Statistics. (2016). *Deaths registered in England and Wales. Series DR*. Retrieved from <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredinenglandandwalesseriesdr/2016>
- Ribeiro, J., Franklin, J., Fox, K. R., Bentley, K., Kleiman, E. M., Chang, B., & Nock, M. K. (2016). Self-injurious thoughts and behaviors as risk factors for future suicide ideation, attempts, and death: a meta-analysis of longitudinal studies. *Psychological Medicine*, 46(2), 225-236.
- Samaritans. (2017). *Suicide statistics report 2017*. Retrieved from https://www.samaritans.org/sites/default/files/kcfinder/files/Suicide_statistics_report_2017_Final.pdf
- Scott, L. N., Pilkonis, P. A., Hipwell, A. E., Keenan, K., & Stepp, S. D. (2015). Non-suicidal self-injury and suicidal ideation as predictors of suicide attempts in adolescent girls: A multi-wave prospective study. *Comprehensive Psychiatry*, 58, 1-10.
- Skegg, K. (2005). Self-harm. *The Lancet*, 366(9495), 1471-1483.
- Whitlock, J., Muehlenkamp, J., Eckenrode, J., Purington, A., Abrams, G. B., Barreira, P., & Kress, V. (2013). Nonsuicidal self-injury as a gateway to suicide in young adults. *Journal of Adolescent Health*, 52(4), 486-492.
- World Health Organisation. (2008). *European Pact for Mental Health and Well-being*. Retrieved from http://ec.europa.eu/health/ph_determinants/life_style/mental/docs/pact_en.pdf
- World Health Organisation. (2017). *Mental health: suicide data*. Retrieved from http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/
- Young Life and Times. (2013). *Summary of results*. Retrieved from <https://www.ark.ac.uk/ylt/results/summary13.pdf>

7 Behaviours & Experiences

7.1 Adverse Childhood Experiences: Background

While a diverse range of individual, family, school and community related psychosocial factors have been identified as predictors of mental health difficulties in adolescence, experiencing or witnessing physical, psychological and sexual violence within the family environment is one of the most frequently cited risk factors across the majority of disorder types (Pinto et al., 2014). Similarly, a wealth of national and international literature consistently links the number of adverse childhood experiences (ACEs) with physical, mental and emotional problems in later life (Dube et al., 2003; Felitti & Anda, 2010; Felitti et al., 1998; Sabates & Dex, 2012). This risk is cumulative, with the US Adverse Childhood Experiences (ACE) study (Felitti et al., 1998) reporting, out of a simple count of ten possible adverse childhood experiences, a strong, graded relationship between an individual's ACE score and substantially increased risk of negative outcomes in adulthood. These adversities include:

- Physical abuse
- Emotional abuse
- Sexual abuse
- Physical neglect
- Emotional neglect
- Mother treated violently
- Household substance abuse
- Household mental illness
- Parental separation/divorce
- Incarcerated household member

Since Felitti & Anda's (2010) seminal work, childhood adversity has played an increasingly prominent role in highlighting the long-term consequences of child maltreatment internationally, with the World Health Organisation adopting and adapting the ACE screening

tool for use in population health surveys across European countries. More recently, in the United Kingdom population surveys of adults in England (Bellis, Lowey, Leckenby, Hughes, & Harrison, 2014) and Wales (Bellis et al., 2015) have demonstrated the same association with ACE scores and numerous health related outcomes with 9% of the English population and 12% of the Welsh population having experienced 4 or more adversities. This research, which has led to over 50 publications, has profoundly changed the focus of the child maltreatment field by shifting the focus from the effect of individual types of childhood victimization to the cumulative effect of ACEs on child and adult wellbeing.

There is now an extensive empirical literature (Oral et al., 2016) highlighting the relationship between the cumulative number of ACEs and various mental health difficulties amongst adults including somatic disorders, hallucinations, anxiety obsessive-compulsive disorders, depression and suicide. Specifically, four or more ACEs increased the risk of depression 4.5 times and suicide attempts 12.2 to 15.3 times. Likewise, within GB, population surveys have shown ACEs count to be strongly predictive of being treated for a mental illness in adulthood, after controlling for sociodemographic factors in multivariate analysis. Compared with people with no ACEs, those reporting four or more were over three times more likely to report current mental illness, six times more likely to report lifetime mental illness and nine times more likely to report having ever felt suicidal or to have self-harmed (Hughes et al., 2017).

Although there is less research looking specifically at ACE scores amongst young people and the development of specific mental health difficulties, research has shown a relationship between ACEs and learning and behavioural problems in children and adolescents (Oral et al., 2015) and depressive symptoms, drug and alcohol abuse, antisocial behaviour and suicide attempts in young adults (Bellis, Hughes, et al., 2014; Schilling, Aseltine, & Gore, 2007). A survey of undergraduate students in Northern Ireland (age range 18-54 years, M = 20.7 years; McGavock & Spratt, 2017), found that 12.3% had experienced 4 or more ACEs

with females having higher rates than males (12.8% vs 11.3%). Parental mental health problems (30.1%), parental separation (22.8%), and emotional abuse (20.6%) were the most commonly reported ACEs and sexual abuse (5.9%), witnessing domestic violence (5.7%) and parental incarceration (2.6%) were the least common. Other research with NI undergraduate populations (age range 18-49 years, average = 20.7; O'Neill et al., 2018) has shown how reports of self-harm and suicidal behaviours increase as the number of childhood adversities increase, although it is worth noting that both student surveys had fairly low response rates, ranging from 17-19%.

However, there remains a lack of research examining the experiences of ACEs amongst UK adolescents and the extent to which these are linked with trauma symptomology and mental wellbeing at this point in the life-course. Equally the pathways by which adversities lead to mental health difficulties requires further elucidation, although current hypotheses about these mediating processes focus primarily on damage to psychological and neurobiological mechanisms involving the stress-response system and emotional dysregulation (Anda et al., 2006; Danese & McEwen, 2012; Uher & McGuffin, 2008).

However, as Finkelhor (2018) notes, other mechanisms, such as unhealthy coping behaviours (e.g. drug and

alcohol misuse), maladaptive cognitive models, impaired attachment and unhelpful peer associations, are likely also to play a role. In particular, the concurrence of mental disorders and substance use disorders in young people is well documented, leading to premature mortality, increased symptom severity and physical health problems and poorer functioning and quality of life (Adair, 2009). The relationship between the two is complex; disorders that present in childhood and preadolescence, especially disruptive behaviour disorders, appear to elevate risk for substance misuse, mood disorders and other disorders in adolescence which in turn increase risk for substance use disorders, mood and personality disorders in young adulthood.

7.2 Adverse Childhood Experiences: Measure

Young person's (11-19 year olds) exposure to ten adverse childhood experiences (ACEs) including physical, emotional and sexual abuse, emotional neglect, physical neglect, parent serious mental health issues, parent substance abuse, domestic violence, parent separation and parent incarceration was measured. Exposure to each adversity ("Yes" or "No") was counted across the ten categories and responses grouped as "0 adversities", "1 adversity", "2 adversities" and "3 or more adversities".

Table 7.1 ACE Questionnaire

Domain	Below is a list of stressful or scary situations that sometimes happen to young people. Tick the box if the event happened to you.	Respondent	
Emotional Abuse	Often being sworn at, insulted, humiliated, or put down by adults in my family.	Young person report (as part of the child trauma screen)	
Physical Abuse	Threatened, hit or hurt badly in my family.		
Sexual abuse	Someone touching my private parts when they shouldn't or making me touch their private parts. OR Someone forcing or pressuring me to do sexual things. Or having to do sexual things when I couldn't say no.		
Emotional Neglect	Often feeling unloved or unimportant in my family.		
Neglect	Often going without food, clean clothing, or medical attention or having no-one to take care of me.		
Domestic Violence	Seeing adults in my family threatening, hitting or badly hurting each other.		
Incarceration	A household member going to prison.		
Parental Separation	Were your parents ever separated or divorced?		Parent report for 11-15 years and self-report for 16-19 year olds
Alcohol/Problematic Substance Use	A household member having a problem with drink or drugs.		
Parental Mental Health	Did you live with an adult who was depressed, mentally ill or did a household member attempt suicide?		

7.3 Adverse Childhood Experiences: Prevalence

The rates of adversity exposure by gender are reported in Table 7.2. For the total sample the most commonly reported adversities were parental separation (35.8%), parental mental health problems (10.7%), emotional neglect (5.7%),

domestic violence (4.4%) and parental alcohol or substance use problems (4.3%). The least common were neglect (0.8%) and parental incarceration (1.5%). Females reported significantly higher rates of emotional neglect, parental alcohol or substance use problems and parental mental health problems than males.

Table 7.2 Prevalence Estimates of Adverse Childhood Experiences by Gender

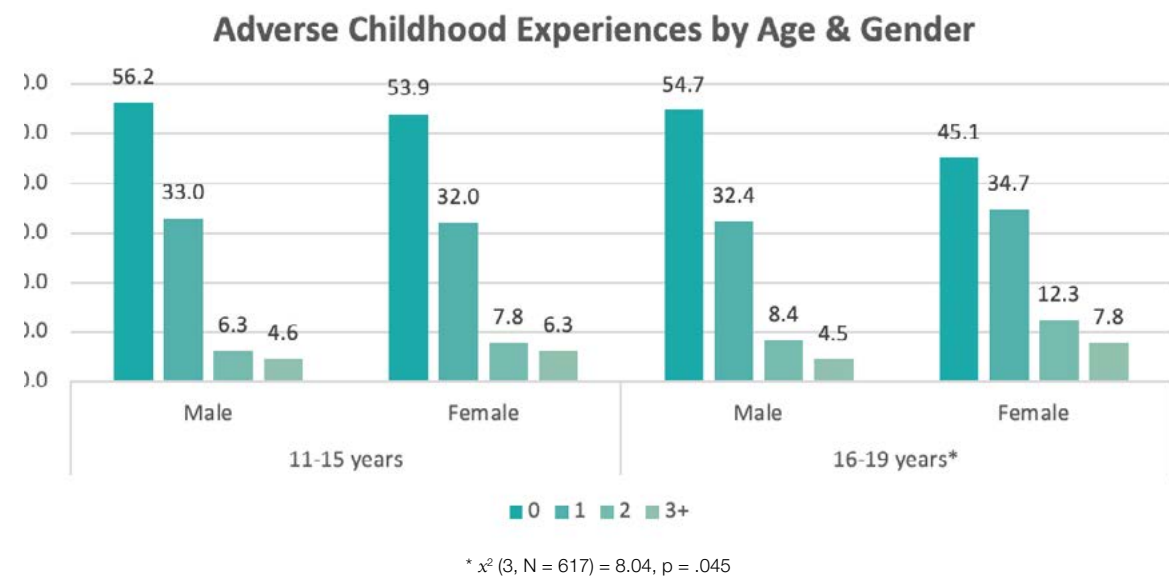
Childhood Adversity	Male (n=658-670)	Female (n=627-631)	Total (n=1285-1299)
1 Emotional Abuse	22 (3.3%)	28 (4.4%)	50 (3.9%)
2 Physical Abuse	27(4.1%)	17 (2.7%)	44 (3.4%)
3 Sexual abuse	13 (2.0%)	19 (3.0%)	32 (2.5%)
4 Emotional Neglecta	28 (4.2%)	46 (7.3%)	74 (5.7%)
5 Neglect	5 (0.8%)	5 (0.8%)	10 (0.8%)
6 Domestic Violence	23 (3.5%)	34 (5.4%)	57 (4.4%)
7 Alcohol/Problematic Substance Useb	21 (3.2%)	34 (5.4%)	55 (4.3%)
8 Parental Mental Healthc	53 (8.0%)	85 (13.5%)	138 (10.7%)
9 Incarceration	9 (1.4%)	11 (1.7%)	20 (1.5%)
10 Parental Separation	230 (35.0%)	230 (36.7%)	460 (35.8%)

a. $\chi^2 (1, N = 1293) = 5.61, p = .018$; b. $\chi^2 (1, N = 1293) = 3.90, p = .048$; c. $\chi^2 (1, N = 1293) = 10.12, p = .001$

Overall, 52.2% of young people aged 11-19 years reported 0 ACEs, 33.2% 1 ACE, 8.6% 2 ACEs and 5.7% 3+ ACEs. Females were significantly more likely than males to report exposure to a higher numbers of ACEs (3+ACEs, 7.0% vs

4.6%; $\chi^2 (3, N = 1293) = 8.33, p = .040$). There were no significant differences between 11-15 year olds and 16-19 year olds. Rate of ACE exposure by age and gender are shown in Figure 7.1.

Figure 7.1 Self-Injury and Thoughts/Attempts of Suicide by Age and Gender

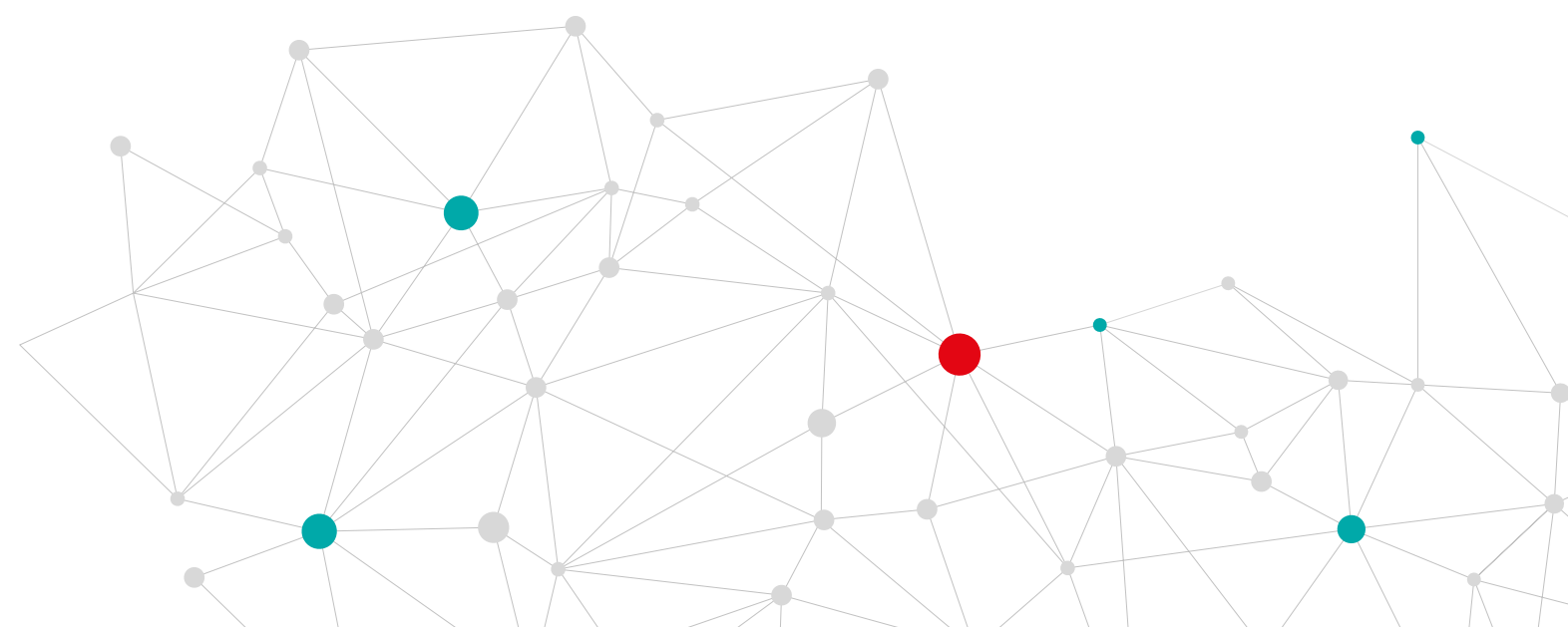
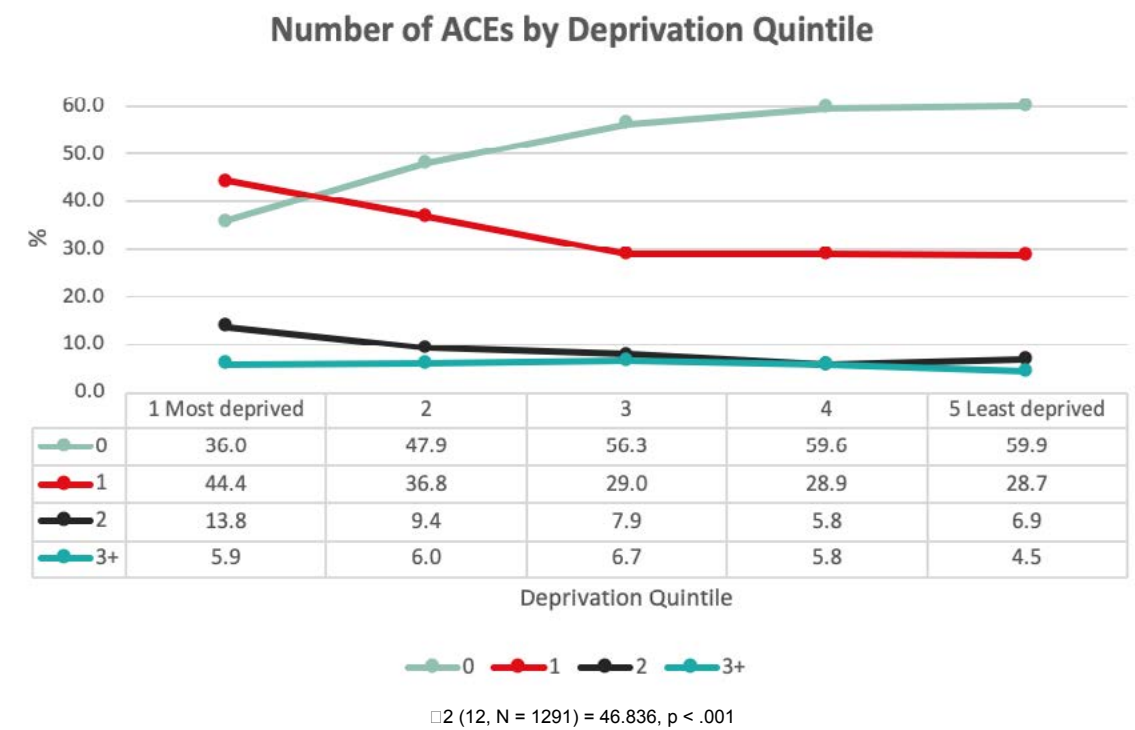


7.4 Adverse Childhood Experiences: Deprivation

Figure 7.2 shows the distribution of ACEs across deprivation quintiles. There were significant differences with a higher proportion of young people in the least

deprived areas experiencing 0 ACEs compared to those in the most deprived (36.0% vs 59.9%) and a higher proportion in the most deprived areas experiencing 3+ ACEs compared to those in the least deprived areas (5.9% vs 4.5%).

Figure 7.2 Number of Childhood Adversities by Deprivation Quintile



7.5 Adverse Childhood Experiences: Overview & Key Statistics

The most commonly reported adversities were parental separation (35.8%), parental mental health problems (10.7%), emotional neglect (5.7%), domestic violence (4.4%) and parental alcohol or substance use problems (4.3%). The least commonly reported were neglect (0.8%) and parental incarceration (1.5%) and females reported significantly higher rates of emotional neglect, parental alcohol or substance use problems and parental mental health problems. Overall, 52.2% of young people aged 11-19 years reported 0 ACEs, 33.2% 1 ACE, 8.6% 2 ACEs and 5.7% 3+ ACEs and females were significantly more likely than males to report exposure to a higher number of ACEs. While findings regarding the most commonly reported ACE types and the higher level of exposure amongst females is in keeping with previous NI research in young adult populations (McGavock & Spratt, 2017), as well as the extant literature, the rates themselves were considerably lower than previously reported. Various factors, such as differences in the wording of the questions asked, the younger age of the Youth Wellbeing NI sample, and the context of answering ACE questions as part of a broader trauma screen, likely contribute to some of these differences. However, the low response rate achieved in the McGavock & Spratt's (2017) survey and the likelihood of response bias (i.e. those with adversities may have been more inclined to complete the survey), would suggest that previous rates of adversity exposure may have been overestimates.

While there were no overall significant differences between 11-15 year olds and 16-19 year olds, females in the 16-19 year old age group were more likely than males to have experienced 3 or more ACEs (7.4% vs 4.5%). Young people living in the most deprived areas were also significantly less likely to have zero ACEs (59.9% vs 36.0%), as well as significantly more likely to experience three or more ACEs (5.9% vs 4.5%). However, the association with deprivation was not a straightforward linear one with those in the 3rd deprivation quintile having the highest level of exposure to three or more ACEs of group (6.7%). Further analyses will explore this association and how it relates to other socioeconomic measures used within the study, as well as the interaction between individual level ACEs and ACE scores and various mental health difficulties and behaviours.

- Parental separation (35.8%), parental mental health problems (10.7%), emotional neglect (5.7%), domestic violence (4.4%) and parental alcohol or substance use problems (4.3%) were the most commonly reported ACEs.
- 52.2% of young people aged 11-19 years reported 0 ACEs, 33.2% 1 ACE, 8.6% 2 ACEs and 5.7% 3+ ACEs.
- Females were significantly more likely than males to report exposure to 3+ ACEs (3+ACEs, 7.0% vs 4.6%)
- A higher proportion of young people in the least deprived areas experienced 0 ACEs compared to those in the most deprived (36.0% vs 59.9%) and a higher proportion those in the most deprived areas experienced 3+ ACEs (5.9% vs 4.5%).

7.6 Social Media Use: Background

The proliferation of social media use and its perceived negative impact are a concern for many parents and caregivers. Fears are not only about the physical health effects of time spent sedentary online, there are other potential risks including exposure to unsuitable content, online grooming, the impact on academic work and concentration levels (Brooks, 2015; Lau, 2017) and feeling pressure to achieve a particular body image or lifestyle (Perloff, 2014). Problematic social media use, and social media addiction more specifically, among children and adolescents have been receiving notable attention from the scientific research community in recent years. For the purposes of this survey, we focused on problematic social media use and addiction and did not explore the other associations with physical health, risk-taking behaviours and poor self-image.

Problematic social media use and addiction have been associated with an array of psychological and mental health problems, such as, poor self-esteem and life-dissatisfaction (Hawi & Samaha, 2017; Valkenburg, Koutamanis, & Vossen, 2017) attention and hyperactivity problems (Baumgartner, van der Schuur, Lemmens, & te Poel, 2018; Boer, Stevens, Finkenauer, & van den Eijnden, 2020), stress and sleep problems (Scott, Biello, & Woods, 2019; van der Schuur, Baumgartner, & Sumter, 2019), depression (Wartberg, Kriston, & Thomasius, 2020), substance use (Lyvers, Narayanan, & Thorberg, 2019) and body dissatisfaction and disordered eating (Aparicio-Martinez et al., 2019). Moreover, problematic social media use and addiction among children and adolescents have also been shown to compromise parent-adolescent communication (Alt & Boniel-Nissim, 2018), school functioning (Van Den Eijnden, Koning, Doornwaard, Van Gurp, & Ter Bogt, 2018), peer and romantic relations (Abbasi, 2019; Bradley, Roberts, & Bradley, 2019).

Still a relatively young field, social media addiction is characterised by e.g. compulsive social media use, such as Facebook addiction (Ryan, Chester, Reece, & Xenos, 2014), addiction to social network sites (Griffiths, Kuss, & Demetrovics, 2014), Twitter addiction (Saaid, Al-Rashid, & Abdullah, 2014), and microblogging dependence (Wang, Lee, & Hua, 2015). Unlike Internet Gaming Disorder, however, social media addiction is not classed as a mental disorder and has not been recognised by the latest version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). There is however growing evidence that this phenomenon is particularly common among adolescents (Rumpf, Meyer, Kreuzer, John, & Meerkerk, 2011; Van Rooij, Schoenmakers, Van de Eijnden, & Van de Mheen, 2010), may have clinical relevance (Pantic, 2014; Ryan et al., 2014) and represent a growing mental health problem (Van Rooij & Schoenmakers, 2013). Problematic social media use can be determined by a range of addiction symptoms including: mood modification (i.e. excessive social media use leading to specific changes in mood states); salience (i.e. total preoccupation with social media use); tolerance (i.e. increasing amounts of time using social media); withdrawal symptoms (i.e. negative feelings and psychological symptoms such as irritability, anxiety when social media use is restricted); conflict (i.e. interpersonal problems as a direct result of social media usage); and relapse (i.e. returning to excessive social media use after a period of abstinence (Bányai et al., 2017).

Given its relative newcomer status, prevalence estimates of social media addiction are currently lacking, however, a variety of studies have provided some evidence of prevalence among different age groups and in different contexts. For example, prevalence of problematic social media users among Nigerian University undergraduates was 1.6% (Alabi, 2013), whereas Olowu and Seri (2012) reported a prevalence rate of 2.8% of addicted

social media use among Nigerian college students. In developing and validating a social media disorder scale, van den Eijnden and colleagues (2016) demonstrated that, among three samples of Dutch children and adolescents, aged 10 to 17 years (overall n=2,198), ‘disordered’ levels of social media use ranged from 7.3% to 11.6%. This study also indicated that ‘disordered’ social media use was more common among boys (10.2%) than girls (4.9%) in one sample (but did not differ between genders in either of the other samples). No differences in age were found between disordered and non-disordered users.

In a representative sample of adolescents aged 15-22 years (n=5,961), Bányaí and colleagues (2017) indicated that 4.5% of adolescents belonged to an at-risk social media use group, while Mérelle and colleagues (2017), using data collected by two Municipal Health Services in the Netherlands in 2013-2014, reported problematic social media use at 9.1% among 21,053 secondary school students (mean age 14.4 years). Girls and those

who were younger were more likely to show problematic use of social media. These rates, according to a review by Pontes et al., (2015), are largely consistent with prevalence rates of more general problematic or addictive Internet use, that range between 1% (Rumpf et al., 2014) and 18.7% (Lin et al., 2014). Estimates such as these however are lacking for youth in Northern Ireland.

7.7 Social Media Use: Measure

The Social Media Disorder scale (SMD; van den Eijnden et al., 2016) is a recently developed 9-item questionnaire based on DSM criteria (Table 7.1). It includes nine criteria: preoccupation, tolerance, withdrawal, displacement, escape, problems, deception, displace and conflict and has been validated in Dutch and Turkish adolescent populations (Sarıçam & Karduz, 2018; Savci, Ercengiz, & Aysan, 2018). Items are scored 1 for “yes” and 0 for “no” and scores of 5 or more are considered to meet the threshold for a social media disorder.

Table 7.1 Social Media Disorder Scale

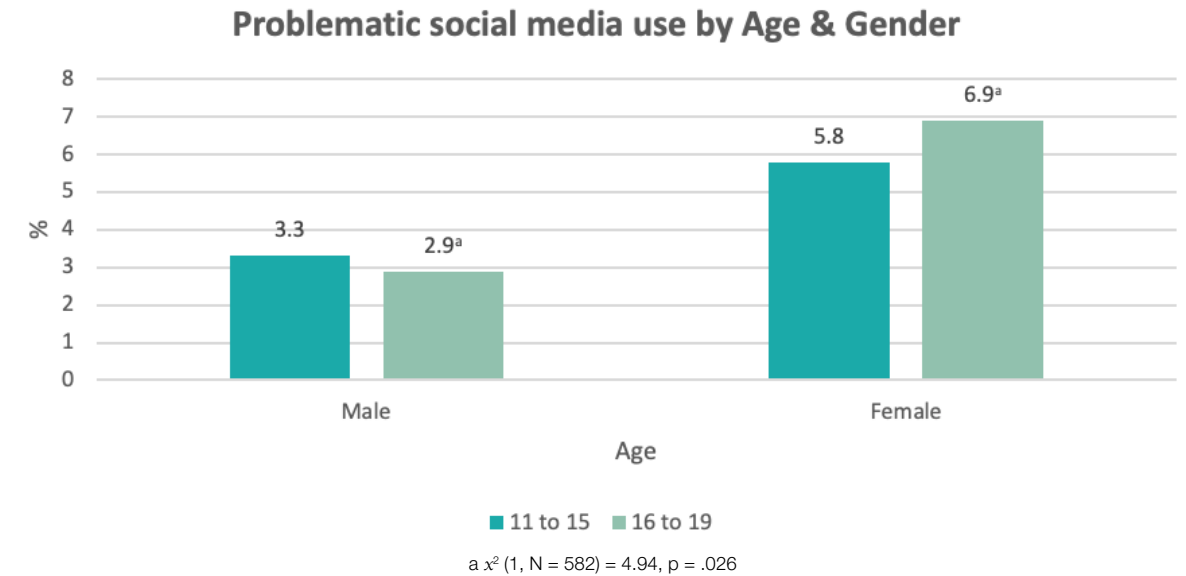
Criterion	During the past year, have you...
Preoccupation	...regularly found that you can't think of anything else but the moment that you will be able to use social media again?
Tolerance	...regularly felt dissatisfied because you wanted to spend more time on social media?
Withdrawal	...often felt bad when you could not use social media?
Persistence	...tried to spend less time on social media, but failed?
Displacement	...regularly neglected other activities (e.g. hobbies, sport) because you wanted to use social media?
Problem	...regularly had arguments with others because of your social media use?
Deception	...regularly lied to your parents or friends about the amount of time you spend on social media?
Escape	...often used social media to escape from negative feelings?
Conflict	...had serious conflict with your parents, brother(s) or sister(s) because of your social media use?

7.8 Social Media Disorder: Prevalence

The percentage of the sample exceeding the cut-off scores for the social media disorder screening measure was 4.74%, and there were significantly higher rates for females (6.4%) than males (3.1%: $\chi^2(1) = 6.84, p = .009$).

There were no differences between the 11-15 (4.5%) and 16-19 (5.0%) age groups on screening positive on the Social Media Disorder screening measure ($\chi^2(1) = 0.138, p = .710$). Rates of social media disorder by age and gender are reported in Figure 7.3.

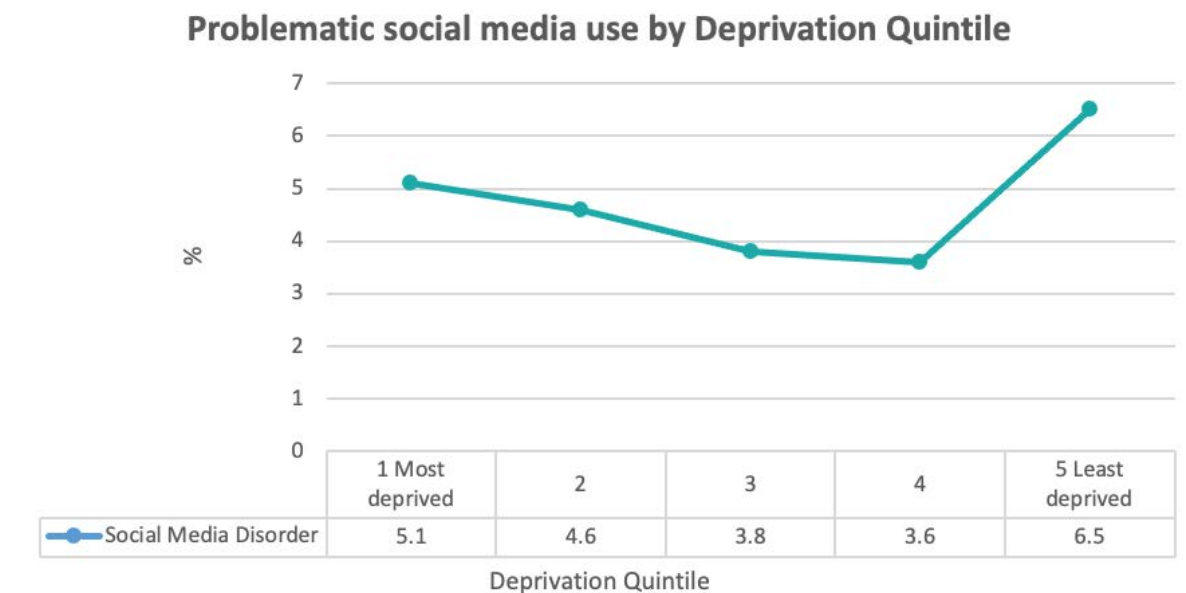
Figure 7.3 Social Media Disorder by Age and Gender



7.9 Social Media Use: Deprivation

Screening positive on the Social Media Disorder Scale was not significantly associated with deprivation ($\chi^2(4) = 2.96, p = .564$) (Figure 7.4).

Figure 7.4 Social Media Disorder by Deprivation Quintile



7.10 Social Media Use: Overview & Key Statistics

Findings from the Youth Wellbeing NI Survey indicate that 4.7% of 11-19 year olds in NI potentially meet the criteria for problematic social media use. Results were relatively consistent with at-risk social media use reported by Bányai and colleagues (2017; 4.5%) but lower than rates of social media disorder or addiction reported by van den Eijnden and colleagues (2016; 7.3-11.6%). Notably the rates recorded in the current survey (and those by van den Eijnden et al., 2016; Bányai et al., 2017) were higher than the 1.6% and 2% prevalence estimates recorded among university and college students (Alabi, 2013; Olowu & Seri, 2012) which would indicate that social media use problems may be more common at younger ages.

Mérelle and colleagues (2017) indicated that problematic social media use was predicted by younger age in a study of Dutch secondary school students and this certainly was the case for males in the current analysis. Problematic social media use was more common among males aged 11-15 years (3.3%) than among males aged 16-19 years (2.9%). However problematic social media use was more common among older females (6.9%) than among younger females (5.8%) in the current analysis. Regarding gender, problematic social media use was higher among female children and adolescents in Northern Ireland (5.8-6.9%) than among male children and adolescents (2.9-3.3%). This was consistent with previous findings by Mérelle et al (2017) who indicated that female secondary school students were over three times more likely than male secondary school students to experience problematic social media use, but, inconsistent with findings by van den Eijnden and colleagues (2016) who showed that disordered levels of social media use were more common among male children and adolescents (10.2%) than among female children and adolescents (4.9%).

- 4.7% of 11-19 year olds in NI met the criteria for a problematic social media use.
- Rates of problematic social media use were higher for females than males (6.4% vs 3.1%).
- Problematic social media use was more common amongst younger teenage males (3.3% vs 2.9%) compared to older teenage males, but more common among older teenage females compared to among younger teenage females (6.9% vs 5.8%).
- Screening positive on the Social Media Disorder Scale was not significantly associated with deprivation ($\chi^2(4) = 2.96, p = .564$), although interestingly, those in the least deprived areas had the highest rates.

7.11 Bullying & Cyber Bullying: Background

Bullying, in any form, can have lasting consequences for children and adolescents. Research has shown significant associations between bullying experiences in childhood and adolescence and an array of psychological and mental health problems including anxiety, depression, psychosis, and even suicide (Wolke, Copeland, Angold, & Costello, 2013). Research has also revealed significant associations between bullying and an array of social and emotional problems for children and adolescents including low self-esteem, compromised social relationships, lower academic achievement and early school leaving (Cornell, Gregory, Huang, & Fan, 2013; Hammig & Jozkowski, 2013).

Defined in relation to a context where an individual is repeatedly exposed to intentional negative actions by one or more person(s) (Olweus, 1991), bullying is characterised by intentionality, repetitiveness, power imbalance, and the causation of negative effects (Smith, 2014), and can manifest in physical (e.g., punching, kicking), verbal (e.g., saying hurtful things), relational (e.g., gossiping), and cyber forms (e.g., trolling, posting negative comments about a person online).

Given the explosive growth of social media over the past 16 years, cyberbullying, understandably, has begun to receive particular attention. Defined by Smith, Mahdavi, et al. (2008) as ‘an aggressive, intentional act carried out by a group or individual, using mobile phones or the internet, repeatedly and over time against a victim who cannot easily defend him or herself’ (p. 376), cyberbullying, although similar to traditional bullying in many ways, is distinct in that (i) it can be perpetrated anonymously and (ii) in settings and contexts where large audiences, often unrelated to either the victim or perpetrator, can witness the persecution. This form of bullying therefore has the potential to amplify power imbalances between perpetrators and victims and exacerbate the psychological trauma of victims (Grigg, 2010; Sticca & Perren, 2013).

A recent meta-analysis based on 80 studies that reported corresponding prevalence rates for cyber and traditional bullying among adolescents (Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014) indicated that prevalence rates for cyber bullying were lower than for traditional bullying, but that both forms of bullying were highly correlated. In this analysis traditional bullying (prevalence = 36%) was twice as common as cyber bullying (prevalence = 15.2%). These estimates are consistent with those in the United Kingdom (UK), where prevalence of traditional bullying among those aged 11-19 years has been shown to be 32.7% while prevalence of cyberbullying has been shown to be 18.1% (Sadler et al., 2018).

In a more recent meta-analysis that focused on the school-aged populations (i.e. both primary and post-primary settings; 4–18 years) of the Republic of Ireland and Northern Ireland between 1997 and 2016 (Foody, Samara, & O’Higgins Norman, 2017), findings also indicated that traditional bullying (prevalence = 26.1%) was twice as common as cyber bullying (prevalence = 13.7%). Notably however, overall victimisation rates for primary school (traditional and cyber combined; 22.4%) were significantly higher than the rates for post-primary (11.8%). Moreover, traditional victimisation in primary schools (26.1%) was significantly higher than post-primary (12.4%), however, this was not the case for cyber victimisation. No significant differences for cyber victimisation were found between primary schools (13.7%) and post-primary schools (9.6%). A higher proportion of boys compared to girls experienced traditional bullying in both primary (25.1% & 21.5% respectively) and post-primary settings (10% & 8.2% respectively) and cyber bullying in primary school settings (15% & 11% respectively) while a higher proportion of girls than boys experienced cyber bullying in post-primary settings (15.6% & 6.9% respectively).

Given the significant and many long-term physical and mental health implications for those who experience and endure these pernicious forms of victimisation in childhood and adolescence, and the importance of evidence-based programs and policies to safeguard youth, it is important to accurately estimate the prevalence of bullying across both cyber and traditional contexts and primary and post-primary educational contexts.

7.12 Bullying & Cyber Bullying: Measures

Cyber bullying was assessed using the questions, (1) “In the past couple of months...Have you been cyberbullied by mobile phone (nasty text messages, nasty mobile phone pictures or video clips sent to you, nasty or silent phone calls)?” and (2) “In the past couple of months... Have you been cyberbullied through the internet (abusive emails or bullying on websites, in chat rooms, or through messages on WhatsApp, Snap Chat or other instant messaging)?”. Participants screened positive for cyberbullying by answering ‘Yes’ (once or twice, or several times) to either of these questions. Bullying was assessed using the questions, (1) “In the past month...

- Have you been hit, kicked or pushed by another student?” and (2) “In the past month... - Has anyone teased you or called you names?” and responses were coded as either ‘Yes’ ‘No’. Participants screened positive for bullying by answering ‘Yes’ (once or twice, or several times) to either of these questions.

7.13 Bullying & Cyberbullying: Prevalence

In the past month, 16.8% of young people reported experiences of bullying had 14.9% had been cyberbullied (Table 7.3). Younger boys (aged 11-15 years) were more likely to bullied than cyberbullied. In older girls (aged 16-19), cyberbullying was twice as common as traditional bullying (18.1% vs. 7.2%).

Table 7.2 Rate of Bullying & Cyberbullying Stratified by Gender

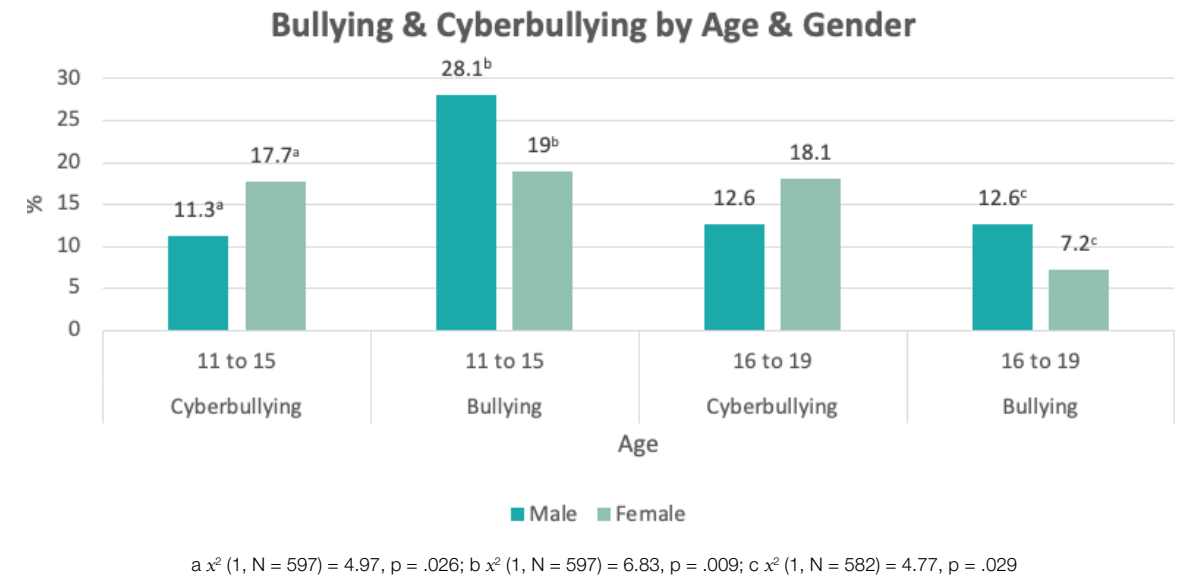
	In the past month...	Total	Male	Female
a	Have you been cyberbullied by mobile phone (e.g. nasty text messages, nasty mobile phone pictures or video clips sent to you, nasty or silent phone calls)?	11.0%	9.2%	12.9%
b	Have you been cyberbullied through the internet (e.g. abusive emails or bullying on websites, in chat rooms, or through messages on WhatsApp, Snap Chat or other instant messaging)?	12.1%	9.5%	14.5%
c	Cyberbullied	14.9%	11.9%	17.9%
d	Have you been hit, kicked or pushed by another student?	6.7%	11.4%	2.2%
e	Has anyone teased you or called you names?	14.1%	15.9%	12.4%
f	Bullied	16.8%	20.7%	13.0%

a $\chi^2(1, N = 1177) = 4.14, p = .042$; b $\chi^2(1, N = 1177) = 7.07, p = .008$; c $\chi^2(1, N = 1177) = 8.26, p = .004$; d $\chi^2(1, N = 1177) = 39.98, p < .001$; e $\chi^2(1, N = 1177) = 12.40, p < .001$

Rates of ‘traditional’ bullying were higher for males than females (20.7% vs 13.0%) and rates of cyberbullying bullying were higher for females than males (17.9% vs

11.9%). Rates of ‘traditional’ bullying and cyberbullying by age and gender are reported in Figure 7.3.

Figure 7.5 Bullying & Cyberbullying by Age & Gender

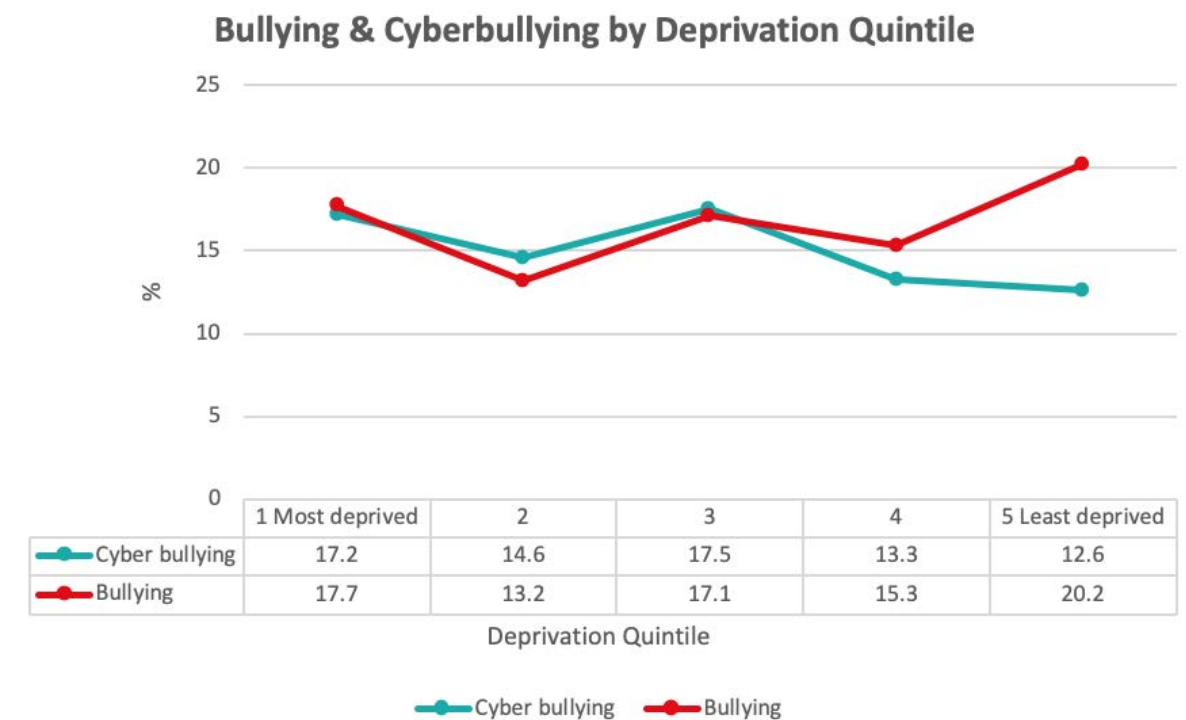


There was a significant association between bullying and cyber bullying; 8.1% experienced only cyber bullying, 9.9% experienced only bullying, and 6.9% experienced both forms ($\chi^2(1) = 126.49, p < .001$).

7.14 Bullying & Cyberbullying: Deprivation

Experiencing cyberbullying ($\chi^2(4) = 3.81, p = .432$) or ‘traditional’ bullying ($\chi^2(4) = 4.74, p = .315$) was not significantly associated with deprivation (Figure 7.4).

Figure 7.6 Bullying & Cyberbullying by Deprivation Quintile



7.15 Bullying & Cyberbullying: Overview & Key Statistics

Overall, compared to rates of traditional bullying reported in other studies (i.e. 26-36%; Modecki et al., 2014; Sadler et al., 2017; Foody et al., 2017), the rate of traditional bullying (16.8%) among youths in Northern Ireland was lower. However, in relation to rates of cyberbullying, cyberbullying (14.9%) among youths in Northern Ireland was consistent with rates reported in other studies (13.7-18.1% Modecki et al., 2014; Sadler et al., 2017; Foody et al., 2017). Overall therefore, the current findings indicated that, while traditional bullying was more common it did not occur twice as often as cyber bullying, as has been indicated elsewhere (Modecki et al., 2014; Foody et al., 2017). However, among boys aged 11-15 years, traditional bullying (28.1%) was more than twice as common as cyberbullying (prevalence = 11.3%), while conversely, cyberbullying (18.1%) was more than twice as common as traditional bullying (7.2%) among girls aged 16-19 years. This latter finding was consistent with those reported by Foody et al. (2017), who showed that a higher proportion of girls than boys experience cyber bullying in post-primary settings compared to primary settings (15.6% & 6.9% respectively).

- 16.8% of 11-19 year olds have experienced 'traditional' bullying and 14.9% cyberbullying.
- Rates of 'traditional' bullying were higher for males than females (20.7% vs 13.0%).
- Rates of cyberbullying were higher for females than males (17.9% vs 11.9%).
- Experiencing cyberbullying or 'traditional' bullying was not significantly associated with deprivation quintile.

7.16 Alcohol Use: Background

In Western countries, alcohol use is commonly initiated in adolescence despite the enforcement of protective age restrictions to limit the onset of drinking until adulthood (Liskola et al., 2018). Alcohol use in adolescence is an important public health concern; adolescents differ considerably from adults in their sensitivity to the various effects of alcohol and research indicates that cognitive, behavioural and emotional regulation may be particularly vulnerable to adverse alcohol effects during this sensitive developmental period (Clark, Thatcher, & Tapert, 2008; Spear, 2014).

Adolescence is a developmental period in which individuals spend increasingly more time with peers and less time with their parents (McKay, Andretta, Magee, & Worrell, 2014) and frequent opportunities to try alcohol may begin to occur in this social environment (Wagner & Anthony, 2002). Young people who start to use alcohol at an early age, typically defined as before the age of 15 years (Grant & Dawson, 1997), have a higher risk of experiencing a host of negative consequences including unintentional alcohol-related injuries, risky sexual behaviour, difficulties in maintaining relationships with peers and friends, and experimenting with or progressing to tobacco and illicit drug use (McCambridge, McAlaney, & Rowe, 2011; Newbury-Birch, 2009).

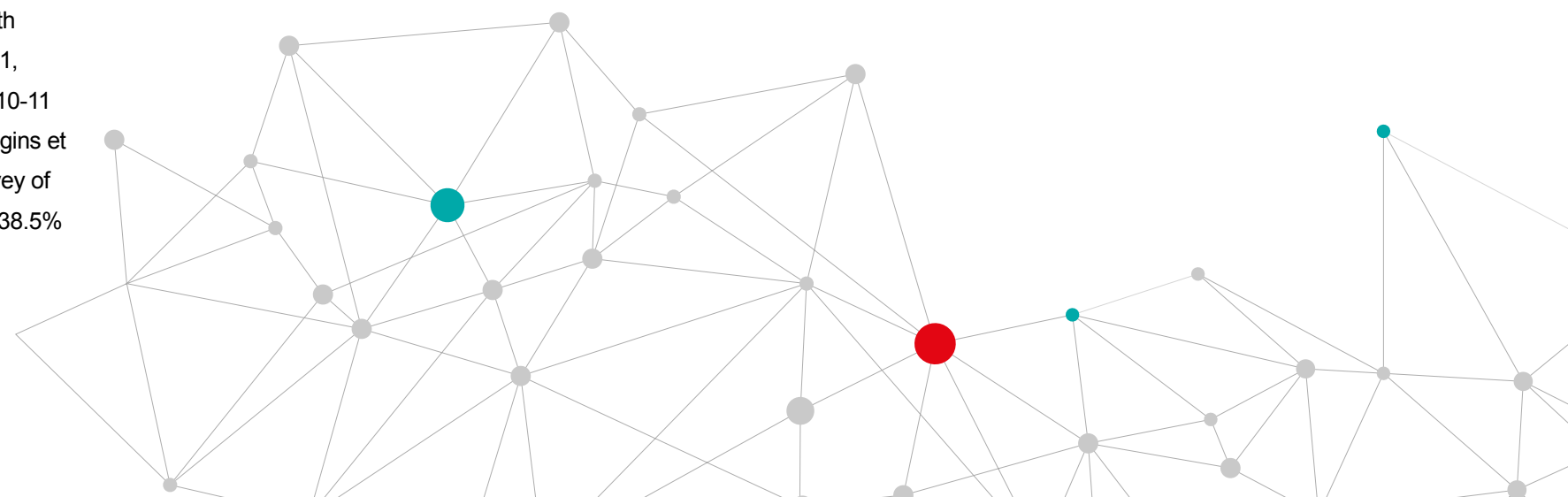
The prevalence of alcohol use by adolescents living in Northern Ireland has been estimated by several school-based surveys. For example, the Belfast Youth Development Study, which commenced in 2000-2001, reported that approximately 67.9% of children aged 10-11 years reported lifetime alcohol use by this stage (Higgins et al., 2018). In a study of 629 post-primary school survey of adolescents in Northern Ireland (aged 11-16 years), 38.5%

of young people were characterised as 'abstainers', 48.3% were moderate drinkers and 13.1% were problematic drinkers (McKay, Sumnall, Goudie, Field, & Cole, 2011). The proportion of abstainers was higher in those aged 11-14 years (51.8%) compared to those aged 14-16 years (19.3%), and the opposite trend was true for problematic drinking (6.6% of those in junior school – aged 11-14 years – met this threshold compared to 22.5% attending middle school – 14-16 years) (McKay et al., 2011).

Although underage drinking remains fairly prevalent (Healey, Rahman, Faizal, & Kinderman, 2014; World Health Organisation, 2015), recent evidence indicates an emerging trend of a decline in alcohol consumption and harmful use among adolescents and young adults in many Western countries including Australia, the US, and across Europe in the last decade (Grucza, Sher, et al., 2018; Lampert & Kuntz, 2014; Pape, Rossow, & Brunborg, 2018; Visontay, Mewton, Sunderland, Prior, & Slade, 2020). For example, the proportion of 11-15 year olds in England who reported ever having had an alcoholic drink in 2014 was 38%, declining from a peak of 64% in 1990 (Health and Social Care Information Centre, 2015). Recent estimates suggest that, in 2016, almost half (44%) of children aged 11-15 years living in England have consumed an alcoholic drink by this age, with approximately 10% having consumed alcohol in the past week and 9% having been drunk in the past month (NHS Digital, 2017). Similar

findings have been reported in Scotland and Wales (Public Health Wales Observatory, 2014; Scottish Government, 2016). In Northern Ireland, estimates from the 2016 Young Persons' Behaviour and Attitudes Survey (Foster, Scarlett, & Stewart, 2017) indicate that 32.4% of individuals aged 11-16 years had consumed an alcohol drinking (not just a sip or taste) by this age, but that this had declined from a high of 59% in 2000. Approximately one-in-four young people surveyed (26%) reported drinking alcohol a few times a month or more (Foster et al., 2017).

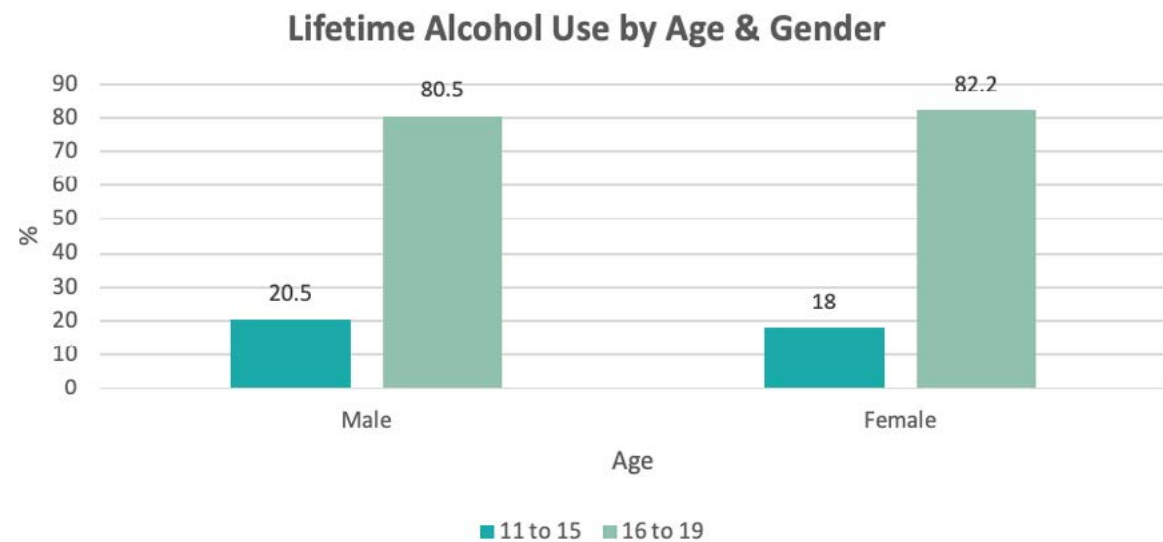
The recent decline in the prevalence of underage drinking appears to apply equally to boys and girls; however, it is noteworthy that although boys and girls are similarly likely to drink up until the age of 16 years, boys become more likely to drink thereafter (Public Health England, 2016). The relationship between socio-economic status and underage drinking is somewhat more complex and varies across the UK. In England, for example approximately 50% of 15-years olds living in the most deprived areas report ever having consumed an alcoholic drink by this age, which is lower than the proportion observed in the least deprived areas (70%) (Health and Social Care Information Centre, 2015). In Scotland, however, 'ever having consumed an alcohol drink' appears to be equally distributed across deprivation quintiles (67-71% in 2013) (ISD Scotland, 2014).



7.17 Alcohol Use: Measures

In this survey, initially participants were asked “Have you ever drunk alcohol?” and if they responded ‘Yes’ they completed the AUDIT-C questions. The AUDIT-C comprises 3 questions: (1) “How often do you have a drink containing alcohol?” (Never, Monthly or less, 2-4 times a month*, or 2-3 times a week); (2) “How many drinks containing alcohol do you have on a typical day when you are drinking?” (1 or 2-3 or 4-5 or 6-7 to 9-10 or more); and (3) “How often do you have six or more drinks on one occasion?” (Never, less than monthly, monthly, weekly, daily or almost daily). A cut-off score of 4 or more was used to identify potentially problematic drinking (Bush et al., 1998). *In addition to the response category “2-4 months”, an extraneous response category “2-3 months” was mistakenly used in the AUDIT-C for the 11-15 year old age group. Responses were added together and are reported as “2-4 months”.

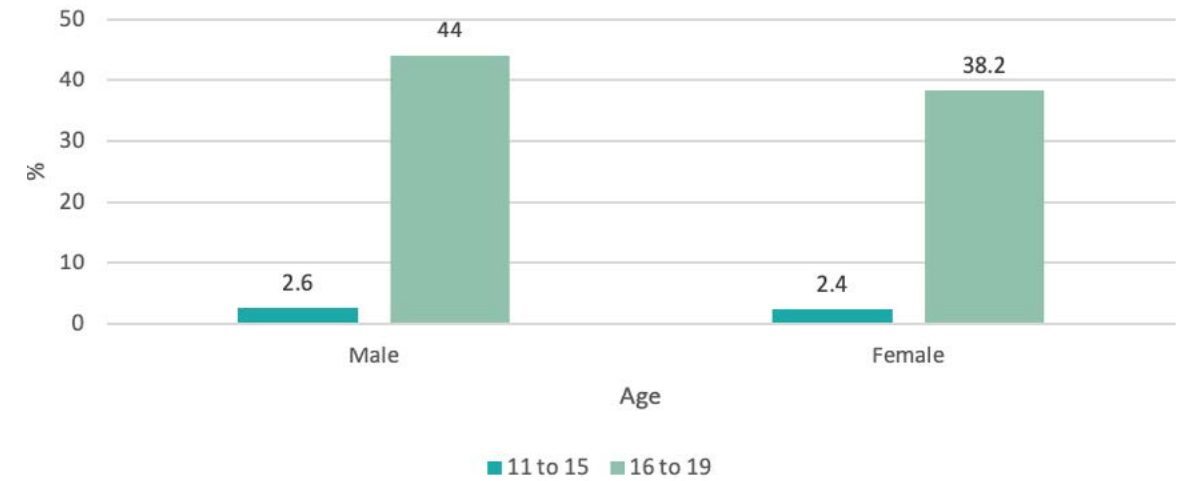
Figure 7.5 Lifetime and Problem Alcohol Use by Age and Gender



7.18 Alcohol Use: Prevalence

The “Have you ever drunk alcohol?” question was endorsed by 50.0% of the 11 to 19 year old participants, and 21.4% exceeded the cut-off score for potentially problematic drinking. There were no significant differences between males and females in relation to ever having drunk alcohol (female = 50.7%, male = 49.2%: $\chi^2(1) = 0.24$, $p = .620$) or exceeding the cut-off score for potentially problematic drinking (female = 20.6%, male = 22.5%: $\chi^2(1) = 0.62$, $p = .432$). Having drunk alcohol was more common in the 16 to 19 year old group (81.4%) than the 11 to 15 year old group (19.3%: $\chi^2(1) = 455.77$, $p < .001$) as was potentially problematic drinking (11-15 years = 2.5%, 16-19 years = 40.9%: $\chi^2(1) = 257.57$, $p < .001$) (Figure 7.5).

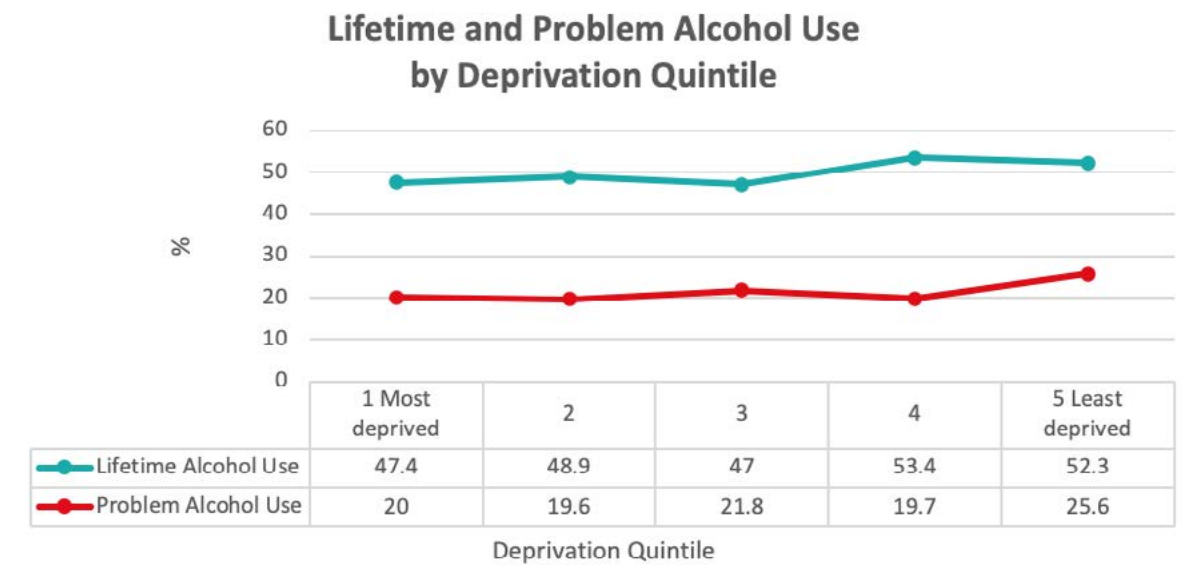
Problem Alcohol Use by Age and Gender



7.19 Alcohol Use: Deprivation

Having ever drunk alcohol was not associated with deprivation ($\chi^2(4) = 3.22$, $p = .521$) nor was potentially problematic drinking ($\chi^2(4) = 3.81$, $p = .431$) (Figure 7.6).

Figure 7.6 Lifetime & Problem Alcohol Use by Deprivation Quintile



7.20 Alcohol Use: Overview & Key Statistics

Overall, the findings relating to lifetime alcohol use by adolescents and young people in Northern Ireland appear to be consistent with recent prevalence estimates reported elsewhere in the UK. Almost 1 in 5 children aged 11-15 years (19.2%) reported having had an alcoholic drink, but the proportion of individuals in this age range meeting the criteria for problematic drinking was very low (2.5%). Nearly 1 in 5 young adults aged 16-19 years had yet to consume an alcoholic drink; this finding appears to mirror the overall trend observed in Westernised societies which suggests that more young people are delaying alcohol onset until beyond emerging adulthood (Törrönen et al., 2019). This is an encouraging trend. However, approximately every 2 in 5 young adults aged 16-19 years (40.9%) met the criteria for problem drinking and this finding is generally comparable with those emerging from other UK cohort studies assessing the prevalence estimate of hazardous drinking at age 18 years (42.8%) (Dyer et al., 2019). As reported elsewhere, it will be important to understand why certain young people may be making the decision to change their relationship with alcohol for the better (Fat et al., 2018). Evidence of this nature could be used to inform intervention efforts to support young people who continue to engage with alcohol in a problematic way.

- Almost 1 in 5 children aged 11-15 years (19.2%) reported having had an alcoholic drink.
- While few young people aged 11-15 years met the criteria for problematic drinking (2.5%), roughly 2 in 5 young people aged 16-19 years (40.9%) did.
- Problematic drinking was not associated with gender or deprivation.

7.21 Tobacco & Recreational Drug Use: Background

The process of brain maturation extends well beyond adolescence into adulthood (Goldenring Fine & Sung, 2014). Experimentation with tobacco and other drug use is a common, yet risky, behaviour during the sensitive developmental period of adolescence (Rudolph et al., 2018). Habitual smoking by adolescents can be a gateway to other types of drug use and cause a variety of health problems including frequent upper respiratory infections and delayed lung development (Park, 2011). There is substantial evidence that tobacco and drug dependence problems, which are both physical and psychological in nature, surface more quickly when use of these drugs starts before adulthood (Chen, Storr, & Anthony, 2009).

At the turn of the millennium, there was robust evidence that experimentation with and use of tobacco and drug use among adolescents in Northern Ireland was an important public health concern. For example, in 2003, evidence from the Belfast Youth Development Study (BYDS), a large survey conducted with 4308 children in the first two years of post-primary education during 2000-2002, indicated that 38% of children in Year 1 (11-12 years) had smoked a cigarette at some point in their life (42% boys; 34% girls), and the comparable estimate for Year 2 students (12-13 years) was 53% (55% boys; 56% girls) (McCrystal, Higgins, Percy, & Thornton, 2003). Lifetime use of drugs was less prevalent but still common; 8% of Year 1 and 20% of Year 2 students had used cannabis, and whereas solvent use was reported by 6% of Year 1 students and 10% of Year 2 students. Use of other drugs, including ecstasy, cocaine, LSD, heroin, poppers, and other pills was generally low (<6%) across both Years. Important age differences emerged from this study. For

example, more boys than girls in Year 1 used cannabis (13% vs. 3%, respectively) and solvents (8% vs. 3%), although this gender gap was narrower in Year 2 for both cannabis (12% for boys and 9% for girls) and solvent use (28% for boys and 14% for girls).

Recent evidence from the 2016 Northern Ireland Young Persons' Behaviour and Attitudes Survey (YPBAS; Foster, Scarlett, & Stewart, 2017), which interviewed 11-16 year olds about their lifetime tobacco and drug use, points to a number of important changes in drug use by adolescents living in Northern Ireland since the early 2000s. For example, in terms of smoking, whereas 37% of young people aged 11-16 years reported having smoked a cigarette (not just a puff) in 2000, this proportion decreased to 12% in 2016, and only 4% of young people (4% of boys; 5% of girls) in 2016 were classified as current smokers. Higher proportions of young people living in the most deprived areas reported ever having smoked (18%) compared to those living in the least deprived areas (11%). Among young people who had heard of e-cigarettes (94.3% of young people surveyed in 2016), 20.2% had used an e-cigarette (Foster et al., 2017).

In relation to other drug use, whereas 23% of children aged 11-16 years reported ever having used a drug in their lifetime in 2000, only 4% of young people surveyed in 2016 reported lifetime drug use. In 2016, of those children who reported using a drug in their lifetime, cannabis was the most commonly used drug (83.7%), followed by solvents (23.3%), Ecstasy (20.7%), synthetic cannabis (16.4%), and cocaine (15.1%); the prevalence estimates

for 'ever use' of all other drugs was less than 15%. Last month use of drugs also declined from a high of 12% in 2003 to 2.5% in 2016.

Recent evidence suggests that drug use is a rapidly changing phenomenon, requiring frequent assessments and reassessments (Johnston et al., 2019). Collecting robust data from a nationally representative sample of adolescents and young people relating to their tobacco and drug use is an important task to continually monitor national trends in these potentially negative and risky health behaviours.

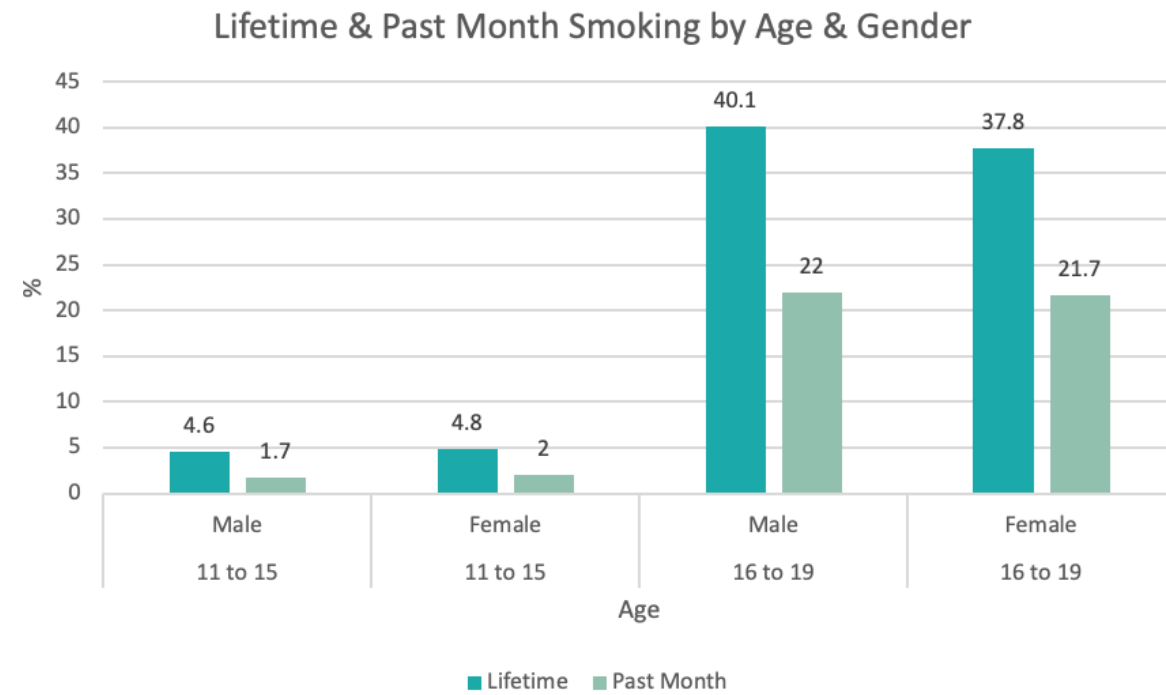
7.22 Tobacco Use: Measure

Participants were asked two questions about tobacco use: Have you ever smoked cigarettes? If yes, have you smoked in the last 4 weeks? Questions about vaping and e-cigarette use were not included.

7.23 Tobacco Use: Prevalence

The "Have you ever smoked cigarettes?" was endorsed by 21.5% of 11-19 year olds and 11.7% reported having smoked in the past month. There was no significant difference between males and females in relation to lifetime or past month cigarette use. Lifetime cigarette use was more common in the 16 to 19 year old group (38.8%) than the 11 to 15 year old group (4.7%: $\chi^2(1)= 203.24$, $p < .001$), as was past month use (16-19 years 21.8% compared to 11-15 years 1.8%; $\chi^2(1)= 11.3.82$, $p < .001$ (Figure 7.7).

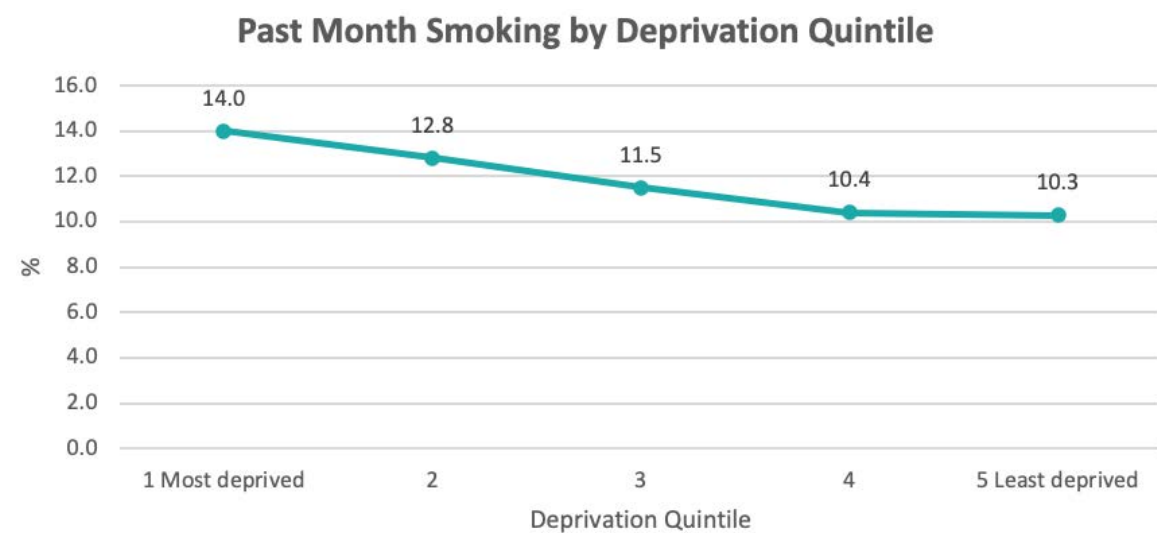
Figure 7.7 Lifetime & Past Month Smoking by Age & Gender



7.24 Tobacco Use: Deprivation

Recent tobacco use was not significantly associated with deprivation, although rates trended downwards as area level deprivation decreased (Figure 7.8).

Figure 7.8 Past Month Smoking by Deprivation Quintile



7.25 Recreational Drug Use: Measures

In this survey, initially participants were asked “Have you ever used drugs?” and if they responded ‘Yes’ they were asked “Have you used any of these drugs in the last 4 weeks?”; a list of drugs (and street names) was presented and participants indicated whether or not they had used each.

7.26 Recreational Drug Use: Prevalence

The “Have you ever used drugs?” question was endorsed by 10.0% of the 11 to 19 year old participants, and there was a significant difference between males (13.1%) and females (7.0%: $\chi^2(1) = 12.14, p < .001$) (Figure 7.9). Having ever used drugs was more common in the 16 to 19 year old group (17.5%) than the 11 to 15 year old group (2.7%: $\chi^2(1) = 72.11, p < .001$). Of those who had used drugs the most common type of drug was cannabis (63.8%), cocaine (18.1%) and Ecstasy (16.4%) (Table 7.4).

Figure 7.9 Lifetime Drug Use by Age & Gender

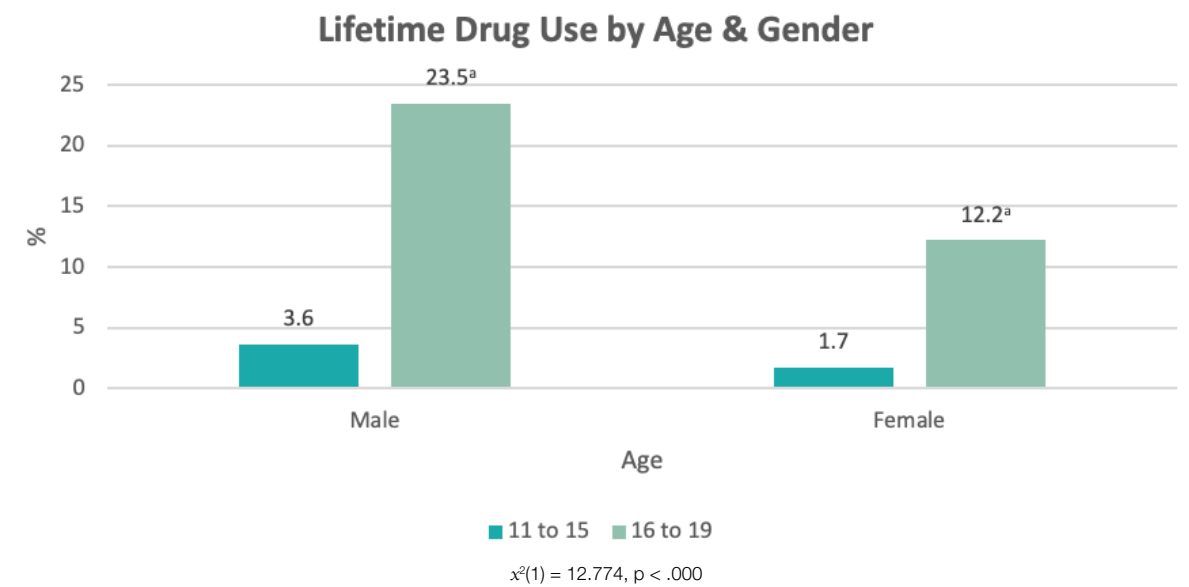


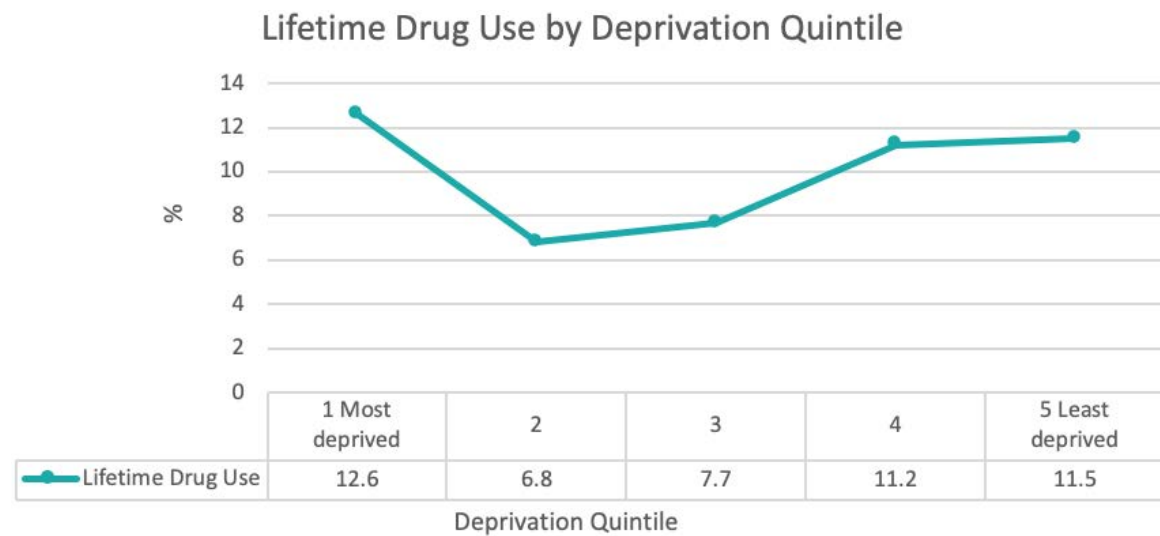
Table 7.2 Drug Use Stratified by Gender

Drug	Total	Male	Female
Cannabis (weed, hash, spliff, skunk, grass)	63.8%	38.8%	25.0%
Coke (cocaine, snow, charlie)	18.1%	10.3%	7.8%
Ecstasy (E, MDMA)	16.4%	8.6%	7.8%
Legal highs (e.g. herbal mixtures, powders, crystals or tablets)	5.2%	0.9%	4.3%
Tranquilisers not prescribed by a doctor (e.g. Valium, Temazepam, Codeine, Lyrica)	4.3%	2.6%	1.7%
Amphetamines (speed, uppers, whiz, crystal meth)	3.4%	0.9%	2.6%
Poppers (Amyl nitrite)	3.4%	1.7%	1.7%
Novel psychoactive substances (e.g. Mephedrone; Synthetic cannabinoids)	2.6%	0.9%	1.7%
Crack (base, rock, stones)	1.7%	0.9%	0.9%
Solvents (glue, gas)	0.9%	0.9%	0.0%
Heroin or methadone	0.9%	0.9%	0.0%

7.27 Recreational Drug Use: Deprivation

Having ever used drugs was not associated with deprivation ($\chi^2(4) = 6.40, p = .171$) (Figure 7.10).

Figure 7.10 Lifetime Drug Use by Deprivation Quintile



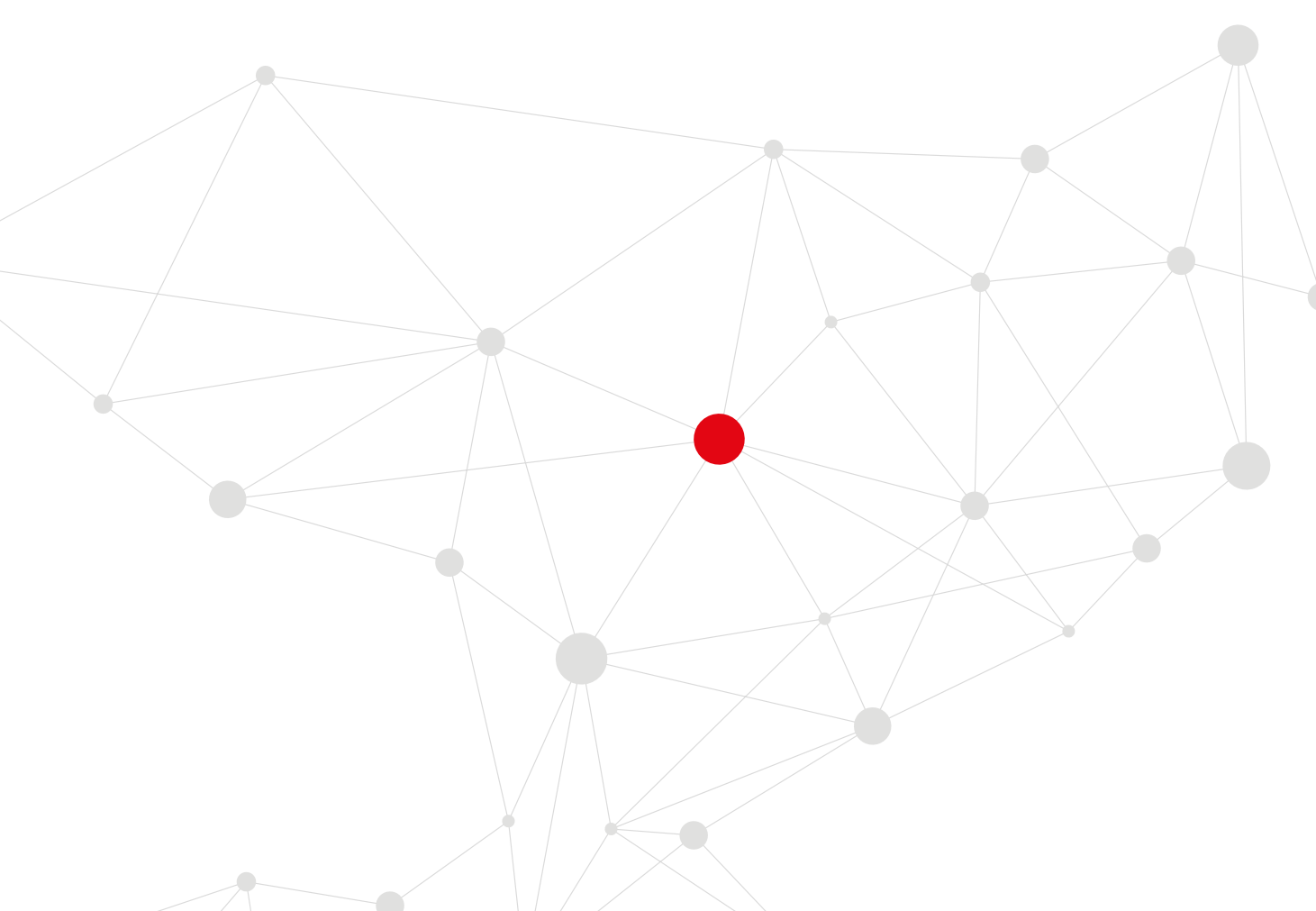
7.28 Overview & Key Statistics

Overall, these findings are consistent with recent evidence emerging from other Western countries which suggests that young people nowadays are engaging with tobacco smoking and illegal drugs at generally lower levels than in years gone by (Grucza, Krueger, et al., 2018; Miech, Keyes, O'Malley, & Johnston, 2020). The current findings indicate that one in five young people aged 11-19 years in Northern Ireland have smoked a cigarette (21.5%) and almost one in nine young people (11.7%) in this age range have used cigarettes in the past month. Recent use of cigarettes by young adolescents aged 11-15 years was very low (<2%). This survey did not measure young people's use of other nicotine-based products (e.g. e-cigarettes, vaping) and it has been proposed that young people may now be using traditional tobacco cigarettes less (or not at all) in favour of other nicotine-based products (Conner et al., 2018; Orth & Merkel, 2018). It will be important for future research to continue to monitor trends in adolescent use of cigarettes and other non-tobacco products, including e-cigarettes, to help identify emerging trends in young people's use of nicotine, which remains a highly addictive drug.

In relation to drug use, one in ten young people aged 11-19 years reported using drugs by this stage in their lifetime, and cannabis was the most commonly used drug (63.8%), followed by cocaine and Ecstasy. Overall, this pattern of drug use appears to be consistent with general experimental drug use during the developmental phase of adolescence and emerging adulthood (Kandel &

Kandel, 2015). Recent evidence, however, suggests that the traditional 'gateway' from alcohol or cigarette smoking to other 'hard' or illegal drugs may be changing; for example, it appears to be more common in recent years for adolescents to use cannabis as their first substance 'of choice' compared to alcohol or cigarettes (Keyes, Rutherford, & Miech, 2019). This may be of concern given the potential for experiencing negative mental health consequences for individuals who engage in persistent and sustained cannabis use from adolescence into adulthood (Kuepper et al., 2011).

- One in five young people aged 11-19 years in Northern Ireland have smoked a cigarette (21.5%) and almost one in nine (11.7%) have used cigarettes in the past month, primarily those aged 16-19 years.
- There was no significant gender differences in relation to lifetime or past month cigarette use.
- Recent tobacco use was not significantly associated with deprivation, although rates trended downwards as area level deprivation decreased.
- One in ten of 11 to 19 year old participants have ever used drugs and males were significantly more likely than females to have done so (3.1% vs 7.0%).
- Drug use was more common in the 16 to 19 year old group than the 11 to 15 year old group (17.5% vs 2.7%).
- The most common type of drug used was cannabis (63.8%), followed by cocaine (18.1%) and Ecstasy (16.4%).
- Having ever used drugs was not associated with deprivation.



7.29 References

- Abbasi, I. S. (2019). Social media and committed relationships: What factors make our romantic relationship vulnerable? *Social Science Computer Review*, 37(3), 425-434.
- Adair, C. (2009). Concurrent Substance Use and Mental Disorders in Adolescents. A Review of the Literature on Current Science and Practice. The Alberta Centre for Child Family and Community Research.
- Alabi, O. F. (2013). A survey of Facebook addiction level among selected Nigerian University undergraduates. *New Media & Mass Communication*, 10(2012), 70-80.
- Alt, D., & Boniel-Nissim, M. (2018). Parent-adolescent communication and problematic internet use: The mediating role of fear of missing out (FoMO). *Journal of Family Issues*, 39(13), 3391-3409.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., . . . Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174-186.
- Aparicio-Martinez, P., Perea-Moreno, A.-J., Martinez-Jimenez, M. P., Redel-Macias, M. D., Pagliari, C., & Vaquero-Abellan, M. (2019). Social media, thin-ideal, body dissatisfaction and disordered eating attitudes: An exploratory analysis. *International Journal of Environmental Research & Public Health*, 16(21), 4177.
- Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., . . . Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PLoS One*, 12(1), e0169839.
- Baumgartner, S. E., van der Schuur, W. A., Lemmens, J. S., & te Poel, F. (2018). The relationship between media multitasking and attention problems in adolescents: Results of two longitudinal studies. *Human Communication Research*, 44(1), 3-30.
- Bellis, M., Ashton, K., Hughes, K., Ford, K., Bishop, J., & Paranjothy, S. (2015). Adverse Childhood Experiences and their impact on health-harming behaviours in the Welsh adult population. Cardiff: Public Health Wales NHS Trust.
- Bellis, M., Hughes, K., Leckenby, N., Jones, L., Baban, A., Kachaeva, M., . . . Ulukol, B. (2014). Adverse childhood experiences and associations with health-harming behaviours in young adults: surveys in eight eastern European countries. *Bulletin of the World Health Organization*, 92, 641-655.
- Bellis, M., Lowey, H., Leckenby, N., Hughes, K., & Harrison, D. (2014). Adverse childhood experiences: retrospective study to determine their impact on adult health behaviours and health outcomes in a UK population. *Journal of Public Health*, 36(1), 81-91.
- Boer, M., Stevens, G., Finkenauer, C., & van den Eijnden, R. (2020). Attention deficit hyperactivity disorder-symptoms, social media use intensity, and social media use problems in adolescents: Investigating directionality. *Child Development*, 91(4), e853-e865.
- Bradley, S. W., Roberts, J. A., & Bradley, P. W. (2019). Experimental evidence of observed social media status cues on perceived likability. *Psychology of Popular Media Culture*, 8(1), 41.
- Brooks, S. (2015). Does personal social media usage affect efficiency and well-being. *Computers in Human Behavior*, 46, 26-37.
- Chen, C.-Y., Storr, C. L., & Anthony, J. C. (2009). Early-onset drug use and risk for drug dependence problems. *Addictive Behaviors*, 34(3), 319-322.
- Clark, D. B., Thatcher, D. L., & Tapert, S. F. (2008). Alcohol, psychological dysregulation, and adolescent brain development. *Alcoholism: Clinical & Experimental Research*, 32(3), 375-385.
- Conner, M., Grogan, S., Simms-Ellis, R., Flett, K., Sykes-Muskett, B., Cowap, L., . . . Torgerson, C. (2018). Do electronic cigarettes increase cigarette smoking in UK adolescents? Evidence from a 12-month prospective study. *Tobacco Control*, 27(4), 365-372.
- Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rates. *Journal of Educational Psychology*, 105(1), 138.
- Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology & Behavior*, 106(1), 29-39.
- Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*, 111(3), 564-572.
- Felitti, V. J., & Anda, R. F. (2010). The relationship of adverse childhood experiences to adult medical disease, psychiatric disorders, and sexual behavior: Implications for healthcare. The impact of early life trauma on health and disease: The hidden epidemic, 77-87.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.
- Finkelhor, D. (2018). Screening for adverse childhood experiences (ACEs): Cautions and suggestions. *Child Abuse & Neglect*, 85, 174-179.
- Foody, M., Samara, M., & O'Higgins Norman, J. (2017). Bullying and cyberbullying studies in the school-aged population on the island of Ireland: A meta-analysis. *British Journal of Educational Psychology*, 87(4), 535-557.
- Foster, C., Scarlett, M., & Stewart, B. (2017). Young Person's Behaviour and Attitude Survey 2016. Retrieved from <https://www.health-ni.gov.uk/articles/young-persons-behaviour-attitudes-survey>
- Goldenring Fine, J., & Sung, C. (2014). Neuroscience of child and adolescent health development. *Journal of Counseling Psychology*, 61(4), 521.
- Grant, B. F., & Dawson, D. A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse*, 9, 103-110.
- Griffiths, M. D., Kuss, D. J., & Demetrovics, Z. (2014). Social networking addiction: An overview of preliminary findings. In *Behavioral Addictions* (pp. 119-141): Elsevier.
- Grigg, D. W. (2010). Cyber-aggression: Definition and concept of cyberbullying. *Journal of Psychologists & Counsellors in Schools*, 20(2), 143-156.
- Grucza, R. A., Krueger, R. F., Agrawal, A., Plunk, A. D., Krauss, M. J., Bongu, J., . . . Bierut, L. J. (2018). Declines in prevalence of adolescent substance use disorders and delinquent behaviors in the USA: a unitary trend? *Psychological Medicine*, 48(9), 1494-1503.
- Grucza, R. A., Sher, K. J., Kerr, W. C., Krauss, M. J., Lui, C. K., McDowell, Y. E., . . . Bierut, L. J. (2018). Trends in adult alcohol use and binge drinking in the early 21st-century United States: a meta-analysis of 6 National Survey Series. *Alcoholism: Clinical & Experimental Research*, 42(10), 1939-1950.
- Hammig, B., & Jozkowski, K. (2013). Academic achievement, violent victimization, and bullying among US high school students. *Journal of Interpersonal Violence*, 28(7), 1424-1436.
- Hawi, N. S., & Samaha, M. (2017). The relations among social media addiction, self-esteem, and life satisfaction in university students. *Social Science Computer Review*, 35(5), 576-586.
- Healey, C., Rahman, A., Faizal, M., & Kinderman, P. (2014). Underage drinking in the UK: changing trends, impact and interventions. A rapid evidence synthesis. *International Journal of Drug Policy*, 25(1), 124-132.
- Health and Social Care Information Centre. (2015). Smoking, Drinking and Drug Use Among Young People in England – 2014. Retrieved from <https://digital.nhs.uk/data-and-information/publications/statistical/smoking-drinking-and-drug-use-among-young-people-in-england/2014>
- Higgins, K., McLaughlin, A., Perra, O., McCartan, C., McCann, M., Percy, A., & Jordan, J.-A. (2018). The Belfast Youth Development Study (BYDS): A prospective cohort study of the initiation, persistence and desistance of substance use from adolescence to adulthood in Northern Ireland. *PLoS One*, 13(5), e0195192.
- Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., . . . Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *The Lancet Public Health*, 2(8), e356-e366.
- ISD Scotland. (2014). Scottish Schools Adolescent Lifestyle and Substance Use Survey, 2013. Retrieved from <https://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/>
- Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). Monitoring the Future National Survey Results on Drug Use, 1975-2018: Overview, Key Findings on Adolescent Drug Use: Institute for Social Research.
- Kandel, D., & Kandel, E. (2015). The Gateway Hypothesis of substance abuse: developmental, biological and societal perspectives. *Acta Paediatrica*, 104(2), 130-137.
- Keyes, K. M., Rutherford, C., & Miech, R. (2019). Historical trends in the grade of onset and sequence of cigarette, alcohol, and marijuana use among adolescents from 1976–2016: Implications for “Gateway” patterns in adolescence. *Drug and Alcohol Dependence*, 194, 51-58.
- Kuepper, R., van Os, J., Lieb, R., Wittchen, H.-U., Höfler, M., & Henquet, C. (2011). Continued cannabis use and risk of incidence and persistence of psychotic symptoms: 10 year follow-up cohort study. *BMJ*, 342.
- Lampert, T., & Kuntz, B. (2014). Tobacco and alcohol consumption among 11-to 17-year-old adolescents: results of the KiGGS study: first follow-up (KiGGS Wave 1). *Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, 57(7), 830-839.
- Lau, W. W. (2017). Effects of social media usage and social media multitasking on the academic performance of university students. *Computers in Human Behavior*, 68, 286-291.
- Lin, I.-H., Ko, C.-H., Chang, Y.-P., Liu, T.-L., Wang, P.-W., Lin, H.-C., . . . Yen, C.-F. (2014). The association between suicidality and Internet addiction and activities in Taiwanese adolescents. *Comprehensive psychiatry*, 55(3), 504-510.
- Liskola, J., Haravuori, H., Lindberg, N., Niemelä, S., Karlsson, L., Kiviruusu, O., & Marttunen, M. (2018). AUDIT and AUDIT-C as screening instruments for alcohol problem use in adolescents. *Drug & Alcohol Dependence*, 188, 266-273.
- Lyvers, M., Narayanan, S. S., & Thorberg, F. A. (2019). Disordered social media use and risky drinking in young adults: Differential associations with addiction-linked traits. *Australian Journal of Psychology*, 71(3), 223-231.
- McCambridge, J., McAlaney, J., & Rowe, R. (2011). Adult consequences of late adolescent alcohol consumption: a systematic review of cohort studies. *PLoS Med*, 8(2), e1000413.
- McCrystal, P., Higgins, K., Percy, A., & Thornton, M. (2003). Emerging patterns in adolescent drug use: the Belfast Youth Development Study 2000-2002. *Child Care in Practice*, 9(1), 73-83.
- McKay, M., Andretta, J. R., Magee, J., & Worrell, F. C. (2014). What do temporal profiles tell us about adolescent alcohol use? Results from a large sample in the United Kingdom. *Journal of Adolescence*, 37(8), 1319-1328.

- McKay, M., Sumnall, H., Goudie, A., Field, M., & Cole, J. (2011). What differentiates adolescent problematic drinkers from their peers? Results from a cross-sectional study in Northern Irish school children. *Drugs: Education, Prevention and Policy*, 18(3), 187-199.
- Mérelle, S., Kleiboer, A., Schotanus, M., Cluitmans, T. L., Waardenburg, C. M., Kramer, D., . . . van Rooij, A. (2017). Which health-related problems are associated with problematic video-gaming or social media use in adolescents? *Clinical Neuropsychiatry: Journal of Treatments Evaluation*, 14(1), 11-19.
- Miech, R., Keyes, K. M., O'Malley, P. M., & Johnston, L. D. (2020). The great decline in adolescent cigarette smoking since 2000: consequences for drug use among US adolescents. *Tobacco Control*.
- Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health*, 55(5), 602-611.
- Newbury-Birch, D. (2009). Impact of alcohol consumption on young people: A systematic review of published reviews.
- NHS Digital. (2017). Smoking, drinking, and drug use among young people: England, 2016. Retrieved from <https://digital.nhs.uk/data-and-information/publications/statistical/smoking-drinking-and-drug-use-among-young-people-in-england/2016>
- O'Neill, S., McLafferty, M., Ennis, E., Lapsley, C., Bjourson, T., Armour, C., . . . Murray, E. (2018). Socio-demographic, mental health and childhood adversity risk factors for self-harm and suicidal behaviour in College students in Northern Ireland. *Journal of Affective Disorders*, 239, 58-65.
- Olowu, A. O., & Seri, F. O. (2012). A study of social network addiction among youths in Nigeria. *Journal of Social Science & Policy Review*, 4(1), 63-71.
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. *The Development & Treatment of Childhood Aggression*, 17(17), 411-448.
- Oral, R., Ramirez, M., Coohy, C., Nakada, S., Walz, A., Kuntz, A., . . . Peek-Asa, C. (2016). Adverse childhood experiences and trauma informed care: the future of health care. *Pediatric Research*, 79(1), 227-233.
- Orth, B., & Merkel, C. (2018). The decline of cigarette smoking among adolescents and young adults in Germany and the rising relevance of waterpipes, e-cigarettes and e-hookahs. *Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, 61(11), 1377.
- Pantic, I. (2014). Online social networking and mental health. *Cyberpsychology, Behavior, & Social Networking*, 17(10), 652-657.
- Pape, H., Rossow, I., & Brunborg, G. S. (2018). Adolescents drink less: how, who and why? A review of the recent research literature. *Drug and alcohol review*, 37.
- Park, S.-H. (2011). Smoking and adolescent health. *Korean Journal of Pediatrics*, 54(10), 401.
- Perloff, R. M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles*, 71(11-12), 363-377.
- Pinto, A. C. S., Luna, I. T., Sivla, A. d. A., Pinheiro, P. N. d. C., Braga, V. A. B., & Souza, A. M. A. (2014). Risk factors associated with mental health issues in adolescents: a integrative review. *Revista da Escola de Enfermagem da USP*, 48(3), 555-564.
- Public Health England. (2016). Data intelligence summary: alcohol consumption and harm among under 18 year olds. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/542889/Alcohol_consumption_and_harms_in_under_18s.pdf
- Public Health Wales Observatory. (2014). Alcohol and health in Wales 2014: Wales profile. Retrieved from <http://www.wales.nhs.uk/news/34433>
- Rudolph, K. E., Sofrygin, O., Schmidt, N. M., Crowder, R., Glymour, M. M., Ahern, J., & Osypuk, T. L. (2018). Mediation of neighborhood effects on adolescent substance use by the school and peer environments. *Epidemiology*, 29(4), 590.
- Rumpf, H.-J., Meyer, C., Kreuzer, A., John, U., & Meerkker, G. J. (2011). Prävalenz der Internetabhängigkeit (PINTA). Bericht an das Bundesministerium für Gesundheit. Verfügbar über. Retrieved from https://www.berlin-suchtpraevention.de/wp-content/uploads/2016/10/2011_PINTA-Studie.pdf
- Rumpf, H.-J., Vermulst, A. A., Bischof, A., Kastirke, N., Gürtler, D., Bischof, G., . . . Meyer, C. (2014). Occurrence of internet addiction in a general population sample: a latent class analysis. *European Addiction Research*, 20(4), 159-166.
- Ryan, T., Chester, A., Reece, J., & Xenos, S. (2014). The uses and abuses of Facebook: A review of Facebook addiction. *Journal of Behavioral Addictions*, 3(3), 133-148.
- Saaïd, S. A., Al-Rashid, N. A. A., & Abdullah, Z. (2014). The impact of addiction to Twitter among university students. In *Future Information Technology* (pp. 231-236): Springer.
- Sabates, R., & Dex, S. (2012). Multiple risk factors in young children's development. London: Centre for Longitudinal Studies, Institute of Education.
- Sadler, K., Vizard, T., Ford, T., Marchesell, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). Mental health of children and young people in England, 2017. London: NHS Digital.
- Sarıçam, H., & Karduz, F. (2018). Sosyal medya kullanım bozukluğu ölçeği'nin Türk kültürüne uyarlanması: geçerlik ve güvenilirlik çalışması. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*, 9(2), 116-135.
- Savci, M., Ercengiz, M., & Aysan, F. (2018). Turkish adaptation of the Social Media Disorder Scale in adolescents. *Archives of Neuropsychiatry*, 55(3), 248.
- Schilling, E. A., Asetline, R. H., & Gore, S. (2007). Adverse childhood experiences and mental health in young adults: a longitudinal survey. *BMC Public Health*, 7(1), 30.
- Scott, H., Biello, S. M., & Woods, H. C. (2019). Identifying drivers for bedtime social media use despite sleep costs: the adolescent perspective. *Sleep Health*, 5(6), 539-545.
- Scottish Government. (2016). Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS): Alcohol report (2015). Retrieved from <https://www.gov.scot/publications/scottish-schools-adolescent-lifestyle-substance-use-survey-salsus-alcohol-summary/>
- Smith, P. K. (2014). Understanding school bullying: Its nature and prevention strategies: Sage.
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology & Psychiatry*, 49(4), 376-385.
- Spear, L. P. (2014). Adolescents and alcohol: acute sensitivities, enhanced intake, and later consequences. *Neurotoxicology & Teratology*, 41, 51-59.
- Sticca, F., & Perren, S. (2013). Is cyberbullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for the perceived severity of bullying. *Journal of Youth & Adolescence*, 42(5), 739-750.
- Uher, R., & McGuffin, P. (2008). The moderation by the serotonin transporter gene of environmental adversity in the aetiology of mental illness: review and methodological analysis. *Molecular Psychiatry*, 13(2), 131-146.
- Valkenburg, P. M., Koutamanis, M., & Vossen, H. G. (2017). The concurrent and longitudinal relationships between adolescents' use of social network sites and their social self-esteem. *Computers in Human Behavior*, 76, 35-41.
- Van Den Eijnden, R., Koning, I., Doornwaard, S., Van Gurp, F., & Ter Bogt, T. (2018). The impact of heavy and disordered use of games and social media on adolescents' psychological, social, and school functioning. *Journal of Behavioral Addictions*, 7(3), 697-706.
- Van Den Eijnden, R., Lemmens, J. S., & Valkenburg, P. M. (2016). The social media disorder scale. *Computers in Human Behavior*, 61, 478-487.
- van der Schuur, W. A., Baumgartner, S. E., & Sumter, S. R. (2019). Social media use, social media stress, and sleep: Examining cross-sectional and longitudinal relationships in adolescents. *Health Communication*, 34(5), 552-559.
- Van Rooij, A., & Schoenmakers, T. (2013). Monitor Internet en Jongeren 2010-2012. Het (mobiele) gebruik van sociale media en games door jongeren. In: Rotterdam: Center for Behavioral Internet Science & IVO.
- Van Rooij, A., Schoenmakers, T. M., Van de Eijnden, R. J., & Van de Mheen, D. (2010). Compulsive internet use: the role of online gaming and other internet applications. *Journal of Adolescent Health*, 47(1), 51-57.
- Visontay, R., Mewton, L., Sunderland, M., Prior, K., & Slade, T. (2020). Changes over time in young adults' harmful alcohol consumption: A cross-temporal meta-analysis using the AUDIT. *Drug & Alcohol Dependence*, 108172.
- Wagner, F. A., & Anthony, J. C. (2002). Into the world of illegal drug use: exposure opportunity and other mechanisms linking the use of alcohol, tobacco, marijuana, and cocaine. *American Journal of Epidemiology*, 155(10), 918-925.
- Wang, C., Lee, M. K., & Hua, Z. (2015). A theory of social media dependence: Evidence from microblog users. *Decision Support Systems*, 69, 40-49.
- Wartberg, L., Kriston, L., & Thomasius, R. (2020). Internet gaming disorder and problematic social media use in a representative sample of German adolescents: Prevalence estimates, comorbid depressive symptoms and related psychosocial aspects. *Computers in Human Behavior*, 103, 31-36.
- Wolke, D., Copeland, W. E., Angold, A., & Costello, E. J. (2013). Impact of bullying in childhood on adult health, wealth, crime, and social outcomes. *Psychological Science*, 24(10), 1958-1970.
- World Health Organisation. (2015). Adolescent alcohol-related behaviours: trends and inequalities in the WHO European Region, 2002-2014. Retrieved from https://www.euro.who.int/__data/assets/pdf_file/0007/382840/WH15-alcohol-report-eng.pdf

8 Parental Mental Health Problems

8.1 Background

Across the United Kingdom, it is estimated that 10% of mothers and 6% of fathers have mental health problems at any given time (Mental Health Foundation, 2016), although higher rates have been suggested with the UK Understanding Society survey (Public Health England, 2020) indicating that 23.6% of mothers and 12.5% of fathers report symptoms of emotional distress. Northern Ireland has currently the highest levels of maternal mental health problems within the UK (Abel et al., 2019); with one in four children, aged 0–16 years, having a mother who has experienced mental health problems and 53% of children over 16 having a mother who has been diagnosed with a common mental health disorder (i.e. depression and anxiety) or a severe mental illness (i.e. psychosis). Internationally, it has been estimated that between 12 and 45% of all adults receiving treatment from mental health services have children (Maybery & Reupert, 2018; Parker et al., 2008) and that between 10–23 % of children live with at least one parent with a mental health problem (Maybery, Reupert, Patrick, Goodyear, & Crase, 2009).

Parental mental health problems are an important global public health issue. There is an association between parent and child mental health; the needs and issues for parents who have mental health problems, their children and families are extensive and have been documented in numerous studies (Beardslee, Solantaus, Morgan, Gladstone, & Kowalenko, 2012; Grant et al., 2018; Lauritzen, Reedtz, Van Doesum, & Martinussen, 2015; Mennen et al., 2015; Nilsson, Gustafsson, & Nolbris, 2015; Reupert & Maybery, 2016; Ruud et al., 2019).

Whilst many children do not experience difficulties due to parental mental health problems many are adversely affected (Barker, Copeland, Maughan, Jaffee, & Uher, 2012; Beardslee, Gladstone, & O'Connor, 2011). All aspects of a child's development can be affected by the direct or indirect effects of parental mental health problems (Lauritzen et al., 2015; Reupert & Maybery, 2016; Rutter, 1989) however there are indications that

exposure to parental mental health problems may be more harmful to younger children (Hansson, O'Shaughnessy, & Monteith, 2013). Literature suggests that 25 to 50 percent of children, of parents with a mental health problem will experience some psychological disorder during childhood or adolescence and between 10 and 14 percent of these children will be diagnosed with a psychotic disorder at some point in their lives (Aldridge & Becker, 2003; Beardslee, Versage, & Gladstone, 1998; Bornstein, 2005; Hjern et al., 2017; Leijdesdorff, van Doesum, Popma, Klaassen, & van Amelsvoort, 2017).

Whilst genes may be a factor, there is increasing research which suggests that the intergenerational transmission of mental health problems is predominantly environmental in nature, and contributes to reduced parenting capacity and ineffective communication between parents and their children (Hansson et al., 2013; Krumm, Becker, & Wiegand-Grefe, 2013; Morawska, Winter, & Sanders, 2009; Reedtz, Lauritzen, & van Doesum, 2012). Adverse socioeconomic circumstances that often accompany mental health problems, poverty and social isolation and low parental education level and parental separation or divorce and stigma are also important factors that can adversely impact on children's outcomes (Hansson et al., 2013; Royal College of Psychiatrists, 2011; Ruud et al., 2019).

Parents also have their own needs relating to their parenting responsibilities and their mental health problems (Falkov, 2012; Grant et al., 2018; Krumm et al., 2013; Reupert, Maybery, & Goodyear, 2010). A parent's mental health problems or adverse living circumstances (including deprivation) may cause them to experience considerable difficulty in fulfilling the parenting role effectively (Aldridge & Becker, 2003; Hansson et al., 2013). In turn, parenting responsibilities may add to their stress and adversely affect their mental health (Baulderstone, Morgan, & Fudge, 2013; Beardslee et al., 2012; Grant et al., 2018; Nicholson, 2010).

8.2 Measures

Parents were asked about any past or current mental problems they had experienced and what, if any, diagnosis they had received. Additionally, as questions that ask respondents to report diagnosed mental health problems are likely to underrepresent the level of poor mental health in any given population, due to under-diagnosis and under-reporting, the General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988) was also used to assess current mental health functioning among parents. The GHQ-12 is a widely used screening

measure for identifying possible mental health problems in the general population and has been used in the Northern Ireland Health Survey (Department of Health NI, 2019), Understanding Society survey (Public Health England, 2020) and the Adult Psychiatric Morbidity Survey (McManus, Bebbington, Jenkins, & Brugha, 2016). It is a 12-item self-completion questionnaire which yields a maximum score of 12, with a score of 4 or more typically used to identify individuals with mental health problems. A description of the different questions asked in the GHQ-12 is presented in Table 8.1.

Table 8.1 GHQ-12 Questions

1	Have you recently been able to concentrate on whatever you're doing?
2	Have you recently lost much sleep over worry?
3	Have you recently felt that you are playing a useful part in things?
4	Have you recently felt capable of making decisions about things?
5	Have you recently felt constantly under strain?
6	Have you recently felt you couldn't overcome your difficulties?
7	Have you recently been able to enjoy your normal day-to-day activities?
8	Have you recently been able to face up to your problems?
9	Have you recently been feeling unhappy and depressed?
10	Have you recently been losing confidence in yourself?
11	Have you recently been thinking of yourself as a worthless person?
12	Have you recently been feeling reasonably happy, all things considered?

8.3 Results: Prevalence

Parents were also asked to report if they had been diagnosed with a mental health problem in the last 12 months or longer ago and could select from a list of common diagnoses or write in another mental health condition that was not listed. The common mental health conditions were: Anxiety; Depression; Postnatal Depression; Addiction; Bipolar Disorder; Schizophrenia; PTSD; OCD; Eating Disorder; Personality Disorder; ADHD; ASD; Conduct or Oppositional Defiant Disorder; and Other.

23.8% of parents had a previous mental health problem and 15.8% have current mental health problems. When asked about their experiences, 16.7% of parents reported receiving a mental health diagnosis in the past year and 30.9% longer ago. Anxiety and depression, including postnatal depression, accounted for the majority of diagnoses, both in the past 12 months and longer ago (Table 8.2). Additionally, 2.1% reported being diagnosed with PTSD in the past 12 months and 3.9% longer ago, while 0.6% reported being diagnosed with an eating disorder in the past 12 months and 3.1% longer ago.

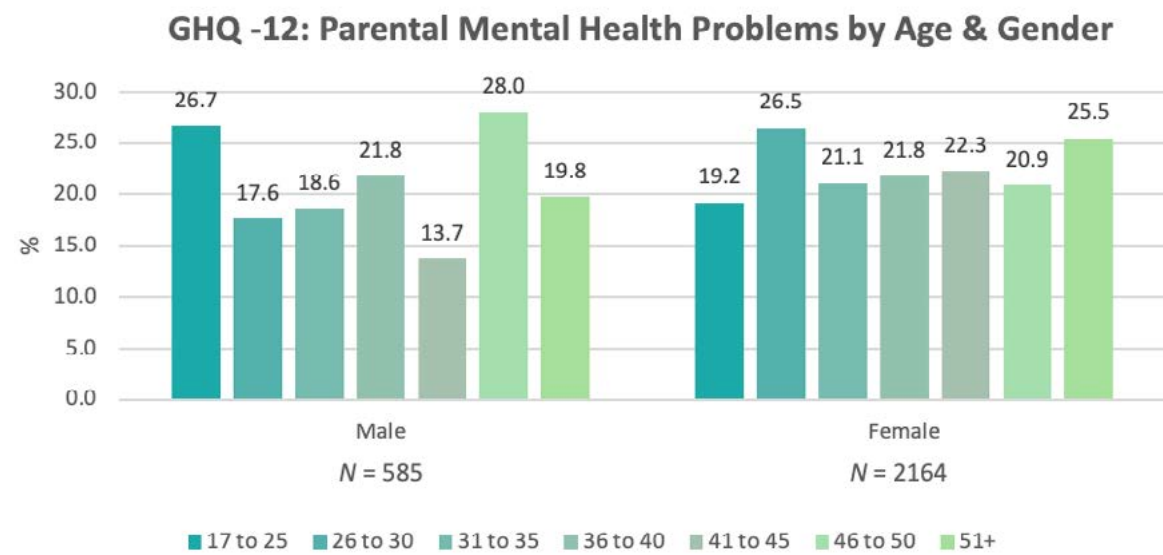
Table 8.2 Parental Mental Health Self-Report Diagnosis

Diagnosis	Past 12 months (%)	Longer ago (%)
Anxiety	14.3	17.0
Depression	11.6	20.0
Postnatal Depression	1.8	15.4
Addiction	1.0	1.3
Bipolar Disorder	0.4	0.6
Schizophrenia	0.2	0.2
PTSD	2.1	3.9
OCD	0.9	1.3
Eating Disorderx	0.6	3.1
Personality Disorder	0.6	0.7
ADHD	0.3	0.5
ASD	0.4	0.2
Conduct or Oppositional Defiant Disorder	0.1	0.1
Other	0.2	0.3

Using the GHQ-12, the estimated prevalence rate of current parental mental health problems was 22%, a very similar rate to the 23.6% identified by the Understanding Society survey (Public Health England, 2020). While there were no significant differences between mothers and fathers ($\chi^2 (1) = 1.080, p = .299$), it should be noted

that the mothers were the key respondent in 78.7% of interviews. There were no significant differences between parents in different age groups ($\chi^2 (6) = 3.848, p = .697$). The prevalence rates of mental health problem by age and gender are shown in Figure 8.1.

Figure 8.1 Prevalence Rates of GHQ-12 Parental Mental Health Problems by Age and Gender

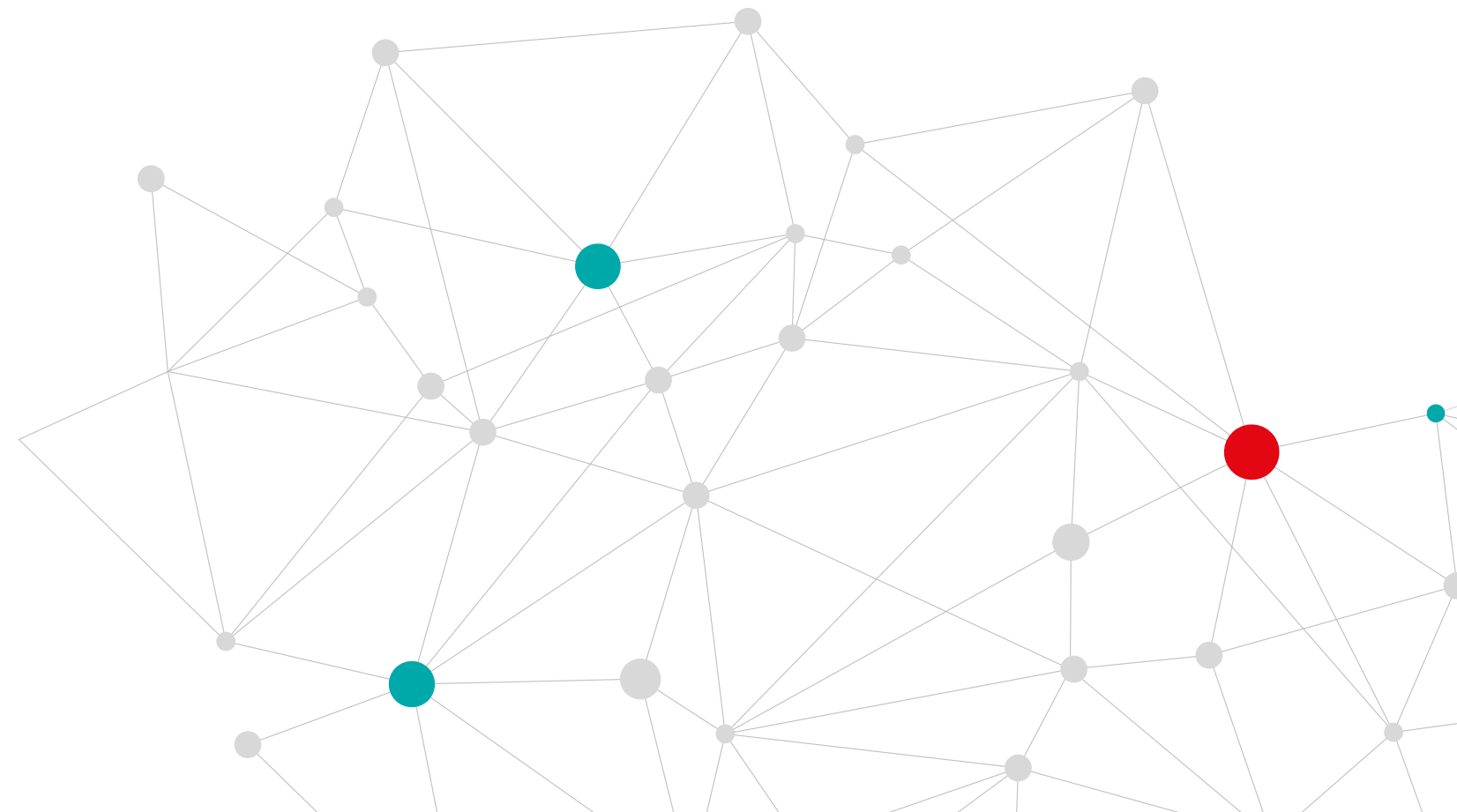
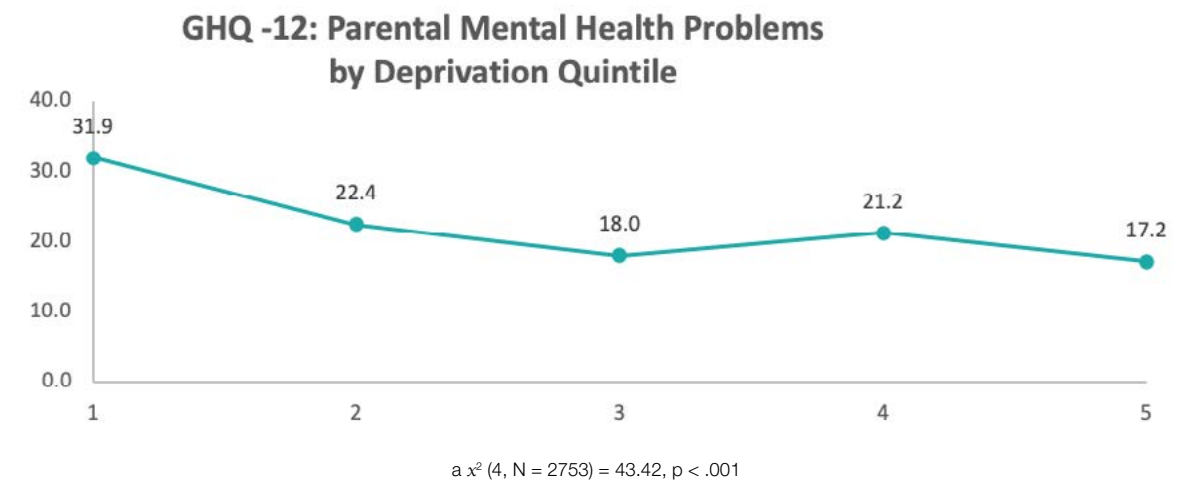


8.4 Results: Deprivation

Figure 8.2 shows the distribution of the prevalence of parental mental health problems across deprivation quintiles. There were significant differences between

quintiles with 31.9% of parents living in the 20% most deprived areas having a mental health problem compared with 17.2% of parents living in the 20% least deprived areas.

Figure 8.2 Prevalence of GHQ-12 Parental Mental Health Problems by Deprivation Quintile



8.5 Results: Parent & Child Mental Health

There was an association between parent and child mental health. Children whose parents reached the cut-off score on the GHQ-12 were twice as likely to meet the threshold for an anxiety or depressive disorder themselves, (OR 2.5, 95% CI:2.0–3.24), and this was statistically significant ($p < 0.001$).

8.6 Overview & Key Statistics

Findings from the Youth Wellbeing NI Survey confirm the high rate of parental mental health problems previously identified in NI (Abel et al., 2019), with 23.8% of parents reporting having a mental health problem in the past and 15.8% reporting current mental health problems. In line with other international research, anxiety and depression, including postnatal depression, were the most commonly diagnosed disorders (Layard, Clark, Knapp, & Mayraz, 2007; O'Doherty & Doherty, 2010). Using the GHQ-12, the overall prevalence rate of current parental mental health problems was 22%, similar to rates identified elsewhere in the UK (Public Health England, 2020). However, where previous research has highlighted mothers as having significantly higher rates of mental

health problems, there were no significant differences across age or gender in the Youth Wellbeing NI Survey. However, it should be noted that the mothers were the key respondent in 78.7% of interviews. Parents in the most deprived areas in NI had higher levels of mental health problems (31.9%) than those in the least deprived areas (17.2%).

- 23.8% of parents reported having a mental health problem in the past and 15.8% reported current mental health problems.
- Anxiety and depression, including postnatal depression, were the most commonly diagnosed disorders both in the past 12 months and longer ago.
- Using the GHQ-12, the estimated prevalence rate of current parental mental health problems was 22%.
- Parents in the most deprived areas in NI had higher levels of mental health problems (31.9%) than those in the least deprived areas (17.2%).
- Children whose parents had current mental health problems (as measured by the GHQ-12) were twice as likely to have an anxiety or depressive disorder themselves.

8.7 References

- Abel, K. M., Hope, H., Swift, E., Parisi, R., Ashcroft, D. M., Kosidou, K., . . . Pierce, M. (2019). Prevalence of maternal mental illness among children and adolescents in the UK between 2005 and 2017: a national retrospective cohort analysis. *The Lancet Public Health*, 4(6), e291-e300.
- Aldridge, J., & Becker, S. (2003). *Children caring for parents with mental illness: Perspectives of young carers, parents and professionals*. Bristol: Policy Press.
- Barker, E. D., Copeland, W., Maughan, B., Jaffee, S. R., & Uher, R. (2012). Relative impact of maternal depression and associated risk factors on offspring psychopathology. *The British Journal of Psychiatry*, 200(2), 124-129.
- Baulderstone, M. J., Morgan, B. S., & Fudge, E. A. (2013). Supporting families of parents with mental illness in general practice. *The Medical Journal of Australia*, 199(3), S11-S13.
- Beardslee, W. R., Gladstone, T. R., & O'Connor, E. E. (2011). Transmission and prevention of mood disorders among children of affectively ill parents: a review. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50(11), 1098-1109.
- Beardslee, W. R., Solantaus, T. S., Morgan, B. S., Gladstone, T. R., & Kowalenko, N. M. (2012). Preventive interventions for children of parents with depression: international perspectives. *Medical Journal of Australia*, 196(7), 23.
- Beardslee, W. R., Versage, E. M., & Gladstone, T. R. (1998). Children of affectively ill parents: A review of the past 10 years. *Journal of the American Academy of Child & Adolescent Psychiatry*, 37(11), 1134-1141.
- Bornstein, M. H. (2005). *Handbook of parenting: social conditions and applied parenting* (Vol. 4). London: Psychology Press.
- Department of Health NI. (2019). *Health survey Northern Ireland: first results 2018/10*. Retrieved from <https://www.health-ni.gov.uk/publications/health-survey-northern-ireland-first-results-201819>
- Falkov, A. (2012). *The family model handbook: An integrated approach to supporting mentally ill parents and their children: Pavilion*.
- Goldberg, D. P., & Williams, P. (1988). *A user's guide to the General Health Questionnaire*. Basingstoke NFER-Nelson.
- Grant, A., Lagson, S., Devaney, J., Davidson, G., Duffy, J., Perra, O., . . . Monds-Watson, A. (2018). *A Study of Health and Social Care Professionals' Family Focused Practice with*

Parents who have Mental Illness, their Children and Families in Northern Ireland.

Hansson, U., O'Shaughnessy, R., & Monteith, M. (2013). *Maternal Mental Health and Poverty: The Impact on Children's Educational Outcomes*.

Hjern, A., Berg, L., Arat, A., Klöfvermark, J., Manhica, H., & Rostila, M. (2017). *Children as Next of Kin in Sweden*. Stockholm: Kalmar.

Krumm, S., Becker, T., & Wiegand-Grefe, S. (2013). Mental health services for parents affected by mental illness. *Current Opinion in Psychiatry*, 26(4), 362-368.

Lauritzen, C., Reedt, C., Van Doesum, K., & Martinussen, M. (2015). Factors that may facilitate or hinder a family-focus in the treatment of parents with a mental illness. *Journal of Child & Family Studies*, 24(4), 864-871.

Layard, R., Clark, D., Knapp, M., & Mayraz, G. (2007). *Annex D: Cost-benefit analysis of psychological therapy. Department of health Improving Access to Psychological Therapies (IAPT) programme: An outline business case for the national rollout of local psychological therapy services*. London: Department of Health.

Leijdesdorff, S., van Doesum, K., Popma, A., Klaassen, R., & van Amelsvoort, T. (2017). Prevalence of psychopathology in children of parents with mental illness and/or addiction: an up to date narrative review. *Current Opinion in Psychiatry*, 30(4), 312-317.

Maybery, D., & Reupert, A. E. (2018). The number of parents who are patients attending adult psychiatric services. *Current Opinion in Psychiatry*, 31(4), 358-362.

Maybery, D., Reupert, A. E., Patrick, K., Goodyear, M., & Crase, L. (2009). Prevalence of parental mental illness in Australian families. *Psychiatric Bulletin*, 33(1), 22-26.

McManus, S., Bebbington, P., Jenkins, R., & Brugha, T. (2016). *Mental Health and Wellbeing in England: the Adult Psychiatric Morbidity Survey 2014: NHS digital*.

Mennen, F. E., Pohle, C., Monro, W. L., Duan, L., Finello, K. M., Ambrose, S., . . . Arroyo, W. (2015). The effect of maternal depression on young children's progress in treatment. *Journal of Child & Family Studies*, 24(7), 2088-2098.

Mental Health Foundation. (2016). *Fundamental facts about mental health*. Retrieved from <https://www.mentalhealth.org.uk/sites/default/files/fundamental-facts-15.pdf>



Morawska, A., Winter, L., & Sanders, M. (2009). Parenting knowledge and its role in the prediction of dysfunctional parenting and disruptive child behaviour. *Child: Care, Health & Development*, 35(2), 217-226.

Nicholson, J. (2010). Parenting and recovery for mothers with mental disorders. In *A public health perspective of women's mental health* (pp. 359-372): Springer.

Nilsson, S., Gustafsson, L., & Nolbris, M. J. (2015). Young adults' childhood experiences of support when living with a parent with a mental illness. *Journal of Child Health Care*, 19(4), 444-453.

O'Doherty, Y. K., & Doherty, T. D. (2010). *Reconnecting with life. Personal experiences of revering from mental health problems in Ireland*. Dublin: Health Research Board.

Parker, G., Beresford, B., Clarke, S., Gridley, K., Pitman, R., Spiers, G., & Light, K. (2008). Technical report for SCIE research review on the prevalence and incidence of parental mental health problems and the detection, screening and reporting of parental mental health problems. York: : Social Policy Research Unit, University of York.

Public Health England. (2020). *Statistical commentary: children living with parents in emotional distress, 2020 update*. London: Public Health England.

Reedtz, C., Lauritzen, C., & van Doesum, K. T. (2012). Evaluating workforce developments to support children of mentally ill parents: implementing new interventions in the adult mental healthcare in Northern Norway. *BMJ Open*, 2(3).

Reupert, A. E., & Maybery, D. (2016). What do we know about families where parents have a mental illness? A systematic review. *Child & Youth Services*, 37(2), 98-111.

Reupert, A. E., Maybery, D., & Goodyear, M. (2010). A model of care for families where parents have drug and alcohol and mental health issues. Northern Kids Care-On Track Community Programs. Lismore, NSW: On Track Community Programs.

Royal College of Psychiatrists. (2011). *Parents as patients: Supporting the needs of patients who are parents and their children*. College Report.

Rutter, M. (1989). Psychiatric disorder in parents as a risk factor for children. In D. Shaffer (Ed.), *Prevention of Mental Disorders, Alcohol & Other Drug Use in Children and Adolescents*. OSAP Prevention Monograph-2 (pp. 157-189). Rockville, MD; Washington, DC: Alcohol, Drug Abuse, & Mental Health Administration (DHHS/PHS); Office for Substance Abuse Prevention.; American Academy of Child & Adolescent Psychiatry.

Ruud, T., Maybery, D., Reupert, A., Weimand, B., Foster, K., Grant, A., . . . Ose, S. O. (2019). Adult mental health outpatients who have minor children: Prevalence of parents, referrals of their children, and patient characteristics. *Frontiers in Psychiatry*, 10, 163.



9 Child Mental Health: Family & Social Context

9.1 Background

The presence of mental health problems in children may be associated with a wide range of factors relating to a child's demographics, individual characteristics, their family circumstances and experiences of family life and relationships, their socioeconomic circumstances and the characteristics of the neighbourhood or community in which they live. This section highlights some of the most common factors consistently identified in the literature as increasing the likelihood of child and adolescent mental health problems and examines their relationship with common mental disorders in the Youth Wellbeing NI Survey.

9.2 Child Demographics & Characteristics

Individual child characteristics such as gender and age contribute to significant variation in mental health prevalence rates at different stages of childhood, as well as in the types of disorders experienced. The onset of behavioural problems tends to occur earlier in childhood than other disorders and, although anxiety disorders such as phobias and separation anxiety can also occur early, the majority of mood and anxiety disorders tend to occur later, during adolescence (Kessler et al., 2007). Girls are more likely than boys to have depressive disorders and anxiety disorders, conduct disorders and ASD are significantly more prevalent among boys and eating disorders are significantly more prevalent among girls (Hamblin, 2016). Although mental health problems are more frequently identified in primary school-age boys than girls, and boys are more likely to be identified as having multiple different difficulties, the gender gap in the prevalence of mental health conditions begins to narrow in adolescence, as emotional problems become more common in girls (Hamblin, 2016). There is also some evidence to suggest that the worsening of adolescents' mental health noted in recent decades is attributable to increases in internalising disorders amongst adolescent girls (Bor, Dean, Najman, & Hayatbakhsh, 2014).

Other factors such as ethnicity and sexual identity can also play an important role. A review of child mental health differences amongst ethnic groups in Britain (Goodman, Patel, & Leon, 2008) concluded that the main minority groups have similar or better mental health than White British children for common disorders, but may have higher rates for some less common conditions. Similarly, a review of the link between sexual minority status and mental health reported elevated risks for depression, anxiety, suicide attempts or suicides, and substance-related problems for sexual minority men and women, as both adolescents and adults (Plöderl & Tremblay, 2015).

In addition to demographic characteristics such as age, gender, ethnicity and sexual identity, individual child characteristics, such as their sense of self, skills and abilities, physical health and development, are also important factors in the development of mental health problems. Internalizing disorders and low self-esteem commonly co-occur in young people, particularly those who have both anxiety and depression (Keane & Loades, 2017). There is a longstanding association between physical health and mental health and children with chronic physical illnesses experience higher levels of depression, anxiety and behavioural problems (Pinquart & Shen, 2011a, 2011b, 2011c). Equally a number of studies suggest that children and young adults with visual impairments have more emotional problems than (Augestad, 2017) sighted peers while children with hearing loss are more vulnerable to a range of mental health conditions such as depression or behavioural problems (Jiang, Kubwimana, Eaton, Kuper, & Bright, 2020). Similarly, children and young people with intellectual disabilities have much higher rates of mental disorders than typically developing children and adolescents (Buckley et al., 2020; Einfeld, Ellis, & Emerson, 2011).

9.3 Family Circumstances & Experiences

As discussed in Section 8, parental mental health problems have a well-established association with child mental health outcomes. Although genetics may have a role in this, the research evidence highlights the importance of the environment, parenting, relationships, the quality of support children receive and their experiences of family life (Hansson, O'Shaughnessy, & Monteith, 2013; Krumm, Becker, & Wiegand-Grefe, 2013; Morawska, Winter, & Sanders, 2009; Reedtz, Lauritzen, & van Doesum, 2012).

Parenting practices categorized as warm, accommodating, responsive, and supportive are associated with increased child emotional and mental wellbeing, while parenting practices categorized as cold, dismissive, overriding, punitive or neglectful are associated with reduced wellbeing (Blaasvær & Ames, 2019; Yap, Pilkington, Ryan, & Jorm, 2014). Inter-parental conflict is frequently associated with common mood and anxiety disorders (Yap et al., 2014) and there is an extensive literature highlighting the negative effects of child maltreatment on an array of psychosocial outcomes including poor mental and emotional health, low self-esteem, poor social skills, and behavioural difficulties (Cashmore & Shackel, 2013; Hillberg, Hamilton-Giachritsis, & Dixon, 2011; Norman et al., 2012).

Sexual abuse, in particular, has a long established association with increased risk of mental and behavioural problems in childhood and adulthood (Cashmore & Shackel, 2013; Hillberg et al., 2011) with outcomes including: post-traumatic symptoms; problematic substance abuse; feelings of helplessness; negative attribution; aggressive behaviours; conduct problems; eating disorders; anxiety; and, more recently, psychotic disorders including schizophrenia and delusional disorder. Likewise, physical abuse, emotional abuse and neglect significantly increase the risk of depressive and anxiety disorders in adulthood and are associated with an almost

three-fold increased risk of eating disorders (Norman et al., 2012). Physical abuse and neglect doubles the odds of childhood behavioural and conduct disorders while, for physical abuse, significant increases are observed in relation to post-traumatic stress disorder (PTSD) and panic disorder diagnoses. Norman et al. (2012) also found evidence of consistent dose-response relationships with repeated, frequent, or severe physical abuse, emotional abuse and neglect producing higher rates of mental disorders.

Combined measures which focus on various forms of child maltreatment, as well as other common family difficulties such as parental mental health issues, parent substance abuse, domestic violence, parent separation and parental incarceration, generally referred to as 'adverse childhood experiences (ACEs)', are consistently identified as significantly increasing the likelihood of a broad range of negative outcomes amongst adults. The graded association between the number of ACEs and mental health problems is now well established. Specifically, four or more ACEs increases the risk of depression 4.5 times and suicide attempts 12.2 to 15.3 times. There is less research looking at ACEs among young people and associations with the development of mental health problems but research has shown a relationship between ACEs and learning and behavioural problems in children and adolescents (Oral et al., 2016) and depressive symptoms, drug and alcohol abuse, antisocial behaviour and suicide attempts in young adults (Bellis et al., 2014; Schilling, Aseltine, & Gore, 2007).

9.4 Socioeconomic Circumstances & Neighbourhood Factors

A wide variety of evidence show family socioeconomic factors, such as low income, poor housing and debt, can have a serious impact on child mental health (Ayre, 2016). Socioeconomically disadvantaged children and adolescents are two to three times more likely to develop mental health problems, with low household income and low parental education being the strongest predictors of

mental health difficulties. Persistent low socioeconomic adversity is significantly related to the onset of mental health problems, whereas the improvement of socioeconomic conditions leads to a reduction in mental health problems (Reiss, 2013). While socioeconomic status is associated with both internalising and externalising disorders, it tends to be more strongly associated with externalising disorders. Neighbourhood disadvantage or deprivation is also associated with increased behavioural problems (Sellström & Bremberg, 2006) and, in the UK, children from the poorest 20% of households are four times as likely to have serious mental health difficulties by the age of 11 as those from the wealthiest 20% of households (Gutman, Joshi, Parsonage, & Schoon, 2015).

In addition to neighbourhood disadvantage, perceptions of community safety and levels of community discrimination against ethnic minorities are associated with increased rates of depression amongst children and adolescents (Stirling, Toumbourou, & Rowland, 2015). Similarly, exposure to community violence in urban settings is related to increases in depressive symptoms, anxiety, post-traumatic stress and aggression for adolescents (McDonald & Richmond, 2008). Community violence and safety are especially relevant to the Northern Ireland context, where the legacy of the Troubles has been linked to one of the highest levels of post-traumatic stress disorder amongst adults in the world (Bunting, Ferry, Murphy, O'Neill, & Bolton, 2013). Childhood adversities and trauma relating to the Troubles, together, play a major role in the development of adult psychopathology in Northern Ireland (Ferry et al., 2014). The impact of the Troubles affects both past and present generations and there is evidence that mothers who report high levels of impact from the Troubles experience higher levels of psychological distress

which, in turn, is related to higher levels of mental health difficulties for own their children (Merrilees et al., 2011).

9.5 Complex Interactions

While each of the child, family, socio-economic and community factors discussed above has been found to be associated with increased risk of child mental health problems across multiple studies and reviews, the relationships between these factors and the development of mental health problems are complex. More than one factor may be associated with a child having a mental health problem; for example, a child may experience a combination of largely unrelated stressors such as a serious health condition, experience of family conflict, live in an economically deprived area and experience mental health problems. Equally, these factors may also be closely associated and interact with each other; for example, levels of family conflict may be higher in areas of deprivation and child health problems may contribute to higher levels of family stress and conflictual relationships. In these circumstances it is important to disentangle the effects of individual factors in order to try to identify the key factors in the development of mental health problems. Typically, this is achieved through multiple regression, a statistical method used to determine which factors remain associated with mental disorders while controlling for multiple factors at the same time. For example, whether a child's health is associated with the presence of a mental disorder, while controlling for gender, age or household income. The goal is to develop a model that accurately predicts the outcome for individual cases using as few factors as possible.

In the most recent survey of the Mental Health of Children and Young People in England (Davis et al., 2019), initial analysis confirmed a significant association

between children and young people having a mental health disorder and a range of demographic, family and socio-economic factors. For example, in the secondary school age group, fourteen individual factors were found to be significantly associated with higher rates of any mental disorder in initial analysis:

- Demographic factors: gender, ethnic group;
- Family-related factors: family functioning, parental mental health, qualification status of parent, marital status of parent, family type;
- Income related socioeconomic factors: occupational classification of parent, receipt of social security benefits, equivalised household income;
- Location related socioeconomic factors: region, neighbourhood deprivation, housing tenure, accommodation type.

However, when regression analysis was used to take account of these factors simultaneously, only seven of the fourteen factors remained significantly associated: ethnic group; family functioning; marital status of parent; occupational classification of parent; being in receipt of benefits, and; household income. Of these, parental mental health, family functioning and being in receipt of benefits had the strongest impact, each doubling the odds that the young person would have a mental disorder.

9.6 Results

In the Youth Wellbeing NI Survey a similar range child demographic, family, socioeconomic and neighbourhood factors were tested for their association with common mood and anxiety disorders:

Child Factors

Child factors included gender, age, ethnicity and sexual identity, together with two child health variables and four special educational needs variables; self-reported child health (rated on a 5 point scale, "very good" to "very bad"); the presence of any specific health problems or conditions (measured from a list of 36 conditions, "Yes" or "No"); any diagnosed or suspected special educational need in relation to speech, language or communication problems ("Yes" or "No"); learning difficulties ("Yes" or "No"); concentration, emotional behaviour, or relational problems ("Yes" or "No") and sensory or physical difficulties, or problems with physical ill health that impact their learning ("Yes" or "No").

51.8% of the sample identified as male, almost 57.8% were aged 2-10 years old and the vast majority were White with only 5% reporting other ethnic backgrounds. The majority reported being in good health (91.7%) with 6.2% reporting specific health conditions. 4.3% had been diagnosed or suspected of having special educational needs related to speech and language; 8.5% in relation to learning difficulties; 7% in relation to problems with emotions, behaviour, concentration or getting along with people; and 4.8% in relation to difficulties with vision or hearing or physical ill health (Table 9.1; descriptive statistics).



Family Factors

Family factors included parental marital status, parent separation, current parental mental health and family functioning. Current parental mental health functioning was based on parent’s scores on the General Health Questionnaire (GHQ). Family functioning was defined as the young person’s exposure to ten adverse childhood experiences (ACEs) including physical, emotional and sexual abuse, emotional neglect, physical neglect, parent serious mental health issues, parent substance abuse, domestic violence, parent separation and parent incarceration. Exposure to each adversity (“Yes” or “No”) was counted across the ten categories and responses grouped as “0 adversities”, “1 adversity”, “2 adversities” and “3 or more adversities”.

91% of parents were married or living as married, with 11.4% having previously married and 17.6% never married. Overall, 31.4% of children and young people had experienced parental separation, a third (33.2%) had experienced one family adversity during childhood, 8.6% two family adversities and 5.7% 3 or more. 22% of parental had scores on the GHQ which were indicative of current mental health problems (Table 9.1; descriptive statistics).

Socioeconomic and Neighbourhood Factors

Socioeconomic and neighbourhood factors included receipt of social security benefits (excluding child tax credits) and four variables which measured the impact of the Troubles and paramilitaries on local communities. Parents who lived in Northern Ireland during the Troubles were asked “How much was the community you lived in affected by the Troubles?” and “In general what impact do you think the Troubles have had on your life?” (rated on a 5 point scale, “none” to “an extreme amount”); as well as how much they agreed or disagreed with the statements “Paramilitary groups create fear and intimidation in this area” and “Paramilitary groups contribute to crime, drug-dealing and anti-social behaviour in this area” (rated on a 5 point scale, “strongly agree” to “strongly disagree”).

37.8% of children and young people lived in a household in receipt of social security benefits (Table 9.1; descriptive statistics). Close to a third (31.3%) of parents thought that their community had been affected by the Troubles quite a bit or by an extreme amount (n=53 preferred not say) and 11.6% though that their own life had been impacted quite a bit or by an extreme amount (n=45 preferred not say). More than 2 in 5 (43.6%) agreed or strongly agreed that paramilitary groups created fear and intimidation in their area (n=63 preferred not say; n=316 didn’t know) and more than half agreed or strongly agreed that paramilitary groups contributed to crime, drug-dealing and anti-social behaviour in their area (n=65 preferred not say; n=379 didn’t know).

Table 9.1 Bivariate and Multivariate Binary Logistic Regression Results Childhood Mental Health

	Descriptive Statistics		Any RCADS%	Unadjusted OR	Adjusted OR
	N	%			
Child Factors					
Child Age (n=3074)					
2-4	641	20.9	4.2	-	-
5-10	1134	36.9	12.8	3.334 (2.184 - 5.089) ***	2.174 (1.293 – 3.655)**
11-15	670	21.8	14.3	3.803 (2.445 - 5.916) ***	2.091 (1.191 – 3.668)**
16-19	629	20.5	18.6	5.197 (3.365- 8.025) ***	4.887 (2.705 - 8.829)***
Gender (n=3067)					
Male	1590	51.8	12.0	-	-
Female	1477	48.2	13.1	1.108 (.894 - 1.371)	1.312 (.958 - 1.798)
Child Ethnicity (n=3071)					
Other	153	5.0	5.9	-	-
White	2918	95.0	12.9	2.367 (1.196 - 4.681)	1.226 (.153 - 9.837)
Child Health (n=2996)					
Very Good or Good	2747	91.7	10.3	-	-
Fair, Bad or Very Bad	249	8.3	39.0	5.556 (4.187 - 7.373)***	3.679 (2.371 – 5.711)***
Any specific child health problems? (n=3029)					
No	2842	93.8	11.3	-	-
Yes	187	6.2	25.4	2.511 (1.745 - 3.615)***	.788 (.436 – 1.425)
Any special educational needs: Speech and Language (n=3007)					
No	2877	95.7	11.9	-	-
Yes	130	4.3	30.0	3.177 (2.147 – 4.700)***	1.042 (.504 – 2.157)
Any special educational needs: Learning difficulties (n=3007)					
No	2750	91.5	11.2	-	-
Yes	257	8.5	28.0	3.074 (2.285 - 4.137)***	.882 (.498 – 1.565)
Any special educational needs: Emotions, behaviour, concentration or getting along with people (n=3007)					
No	2796	93.0	10.8	-	-
Yes	211	7.0	37.4	4.942 (3.649 - 6.694)***	2.925 (1.638 – 5.225)***
Any special educational needs: Difficulties with vision or hearing or physical ill health (n=3007)					
No	2864	95.2	11.5	-	-
Yes	143	4.8	35.7	4.257 (2.967 - 6.107)***	1.842 (.933 – 3.638)
Any special educational needs: Difficulties with vision or hearing or physical ill health (n=3007)					
No	2864	95.2	11.5	-	-
Yes	143	4.8	35.7	4.257 (2.967 - 6.107)***	1.842 (.933 – 3.638)
Family Factors					
Marital Status (n=3011)					
Married	1826	60.6	11.0	-	-
Cohabiting	312	10.4	13.5	1.265 (.885 - 1.807)	1.175 (.689 - 2.003)
Lone-Single	531	17.6	15.4	1.485 (1.125 - 1.960)**	.655 (.292 - 1.470)
Lone-previously married	342	11.4	14.6	1.392 (.997 - 1.944)	.522 (.223 - 1.218)
Parental Separation (n=3053)					
Not living with both biological parents	958	31.4	15.8	-	-
Living with both biological parents	2095	68.6	11.0	.662 (.531 - .826)***	.682 (.330 – 1.407)

	Descriptive Statistics		Any RCADS%	Unadjusted OR	Adjusted OR
	N	%			
Young person's ACEs (n=1291)					
0	678	52.5	11.9	-	-
1	428	33.2	12.6	1.064 (.737 - 1.537)	1.690 (.864 - 3.303)
2	111	8.6	35.1	3.992 (2.537 - 6.283)***	3.291 (1.405 - 7.710)**
3+	74	5.7	51.4	7.780 (4.665 - 2.975)***	8.447 (3.558 - 20.051)***
Parental Mental Health Problems (n=2753)					
No	2146	78.0	9.5	-	-
Yes	607	22.0	21.0	2.548 (2.006 - 3.236)***	1.418 (1.004 - 2.002)*
Socioeconomic and Neighbourhood Factors					
Family Benefits (n=3074)					
No Benefits	1912	62.2	10.0	-	-
Benefits	1162	37.8	16.7	1.806 (1.457 - 2.238)***	1.753 (1.215 - 2.479)**
^aCommunity affected by the Troubles? (n=2336)					
No	1605	68.7	10.3	-	-
Yes	731	31.3	16.8	1.759 (1.370 - 2.259)***	1.300 (.911 - 1.856)
^aImpact Troubles have had on your life? (n=2772)					
No	2450	88.4	10.9	-	-
Yes	322	11.6	20.5	2.098 (1.557 - 2.828)***	1.439 (.936 - 2.214)
^bParamilitary groups create fear and intimidation in this area? (n=2251)					
No	1271	56.4	11.2	-	-
Yes	980	43.6	14.0	1.292 (1.005 - 1.661)*	.857 (.546 - 1.345)
^bParamilitary groups contribute to crime, drug-dealing and anti-social behaviour in this area? (n=2186)					
No	1057	48.4	10.3	-	-
Yes	1129	51.6	14.1	1.426 (1.100 - 1.848)**	1.207 (.764 - 1.906)

Note: dependent variable is 'Any RCADS' disorder. The adjusted ORs for the ACE variable are derived from a multivariate model with only young people aged 11-19 years included (n=1291). ^aNone or A little bit or A moderate amount = No; Quite a bit or An extreme amount = Yes; prefer not to say excluded. ^bStrongly agree or Agree = Yes; Neither agree nor disagree or Disagree or Strongly disagree = No; prefer not to say or don't know excluded.

Using bivariate binary logistic regression, almost all the variables included in the model were significantly associated with increased prevalence of any mood or anxiety disorder, with the exception of child gender and ethnicity (see Table 9.1, unadjusted Odds Ratios). However, similarly the Mental Health of Children and Young People in England analyses (Davis et al., 2019), when all factors were analysed simultaneously using multivariate binary logistic regression, only six remained significantly associated: child age; child health and disability; any special educational needs relating to emotions, behaviour, concentration or getting along with people; the young person's ACE exposure; parental mental health problems; and parents being in receipt of social security benefits (see Table 9.1, adjusted Odds Ratios).

The young person's Adverse Childhood Experiences produced the largest effect, with young people who had experience three or more adversities being more than eight times more likely to have any mood or anxiety disorder than those who had experienced none. This was followed by child age, with 16-19 years olds being almost 5 times more likely to have any mood or anxiety disorder than the youngest age group. Self-reported child health increased the risk by a ratio of 3.6 and the young person having a special educational need related to emotions, behaviour, concentration or getting along with people, increased the risk almost threefold. The strong associations between child health and SEN status are unsurprising given the likely overlap these variables have with the presence of mental health problems, particularly,

in relation to SEN status which specifically relates to emotional or behavioural problems. The remaining two significant factors, receipt of social security benefits and parental mental health problems, increased the risk of any mood or anxiety disorder by a rate of 1.75 and 1.41 respectively.

9.7 Overview & Key Statistics

A wide range of child, family, socioeconomic factors were individually associated with increased levels of any common mood or anxiety disorder among children and young people in NI. However, when all factors were analysed simultaneously using regression analysis, only six remained significantly associated: young person ACEs; child age; self-reported child health; special educational needs related to emotions, behaviour, concentration or getting along with people; household receipt of social security benefits; and parental mental health problems. The findings demonstrate strong consensus with previous research, in particular the Mental Health of Children and Young People in England survey (Davis et al., 2019)(Davis et al., 2019), in identifying child trauma, child health, family socioeconomic status and parental mental health problems as key risk factors which should be the target of future preventative and therapeutic service provision.

This analysis is just the first step in exploring the complex interactions between child and adolescent mental health problems and the broad array of potential predictive and mediating factors collected as part of the Youth Wellbeing NI Survey.

- When all factors were analysed simultaneously, only six remained significantly associated:
 - Adverse Childhood Experiences: these increased the rate of any mood or anxiety disorder by a ratio of 8.
 - Age: young people aged 16-19 years olds were almost 5 times more likely to have any mood or anxiety disorder than the youngest age group.
 - Self-reported child health: this increased the rate of any mood or anxiety disorder by a ratio of 3.6.
 - Special educational need related to emotions, behaviour, concentration or getting along with people: this increased the rate of any mood or anxiety disorder by a ratio of 3.
 - Receipt of social security benefits – increased the rate of any mood or anxiety disorder by a ratio of 1.7 which may represent the potentially wide role of deprivation.
 - Parental mental health problems: this increased the rate of any mood or anxiety disorder by a ratio of 1.41.

9.8 References

Augestad, L. B. (2017). Self-concept and self-esteem among children and young adults with visual impairment: A systematic review. *Cogent Psychology*, 4(1), 1319652.

Ayre, D. (2016). Poor mental health: The links between child poverty and mental health problems: Children's Society.

Bellis, M. A., Hughes, K., Leckenby, N., Jones, L., Baban, A., Kachaeva, M., . . . Ulukol, B. (2014). Adverse childhood experiences and associations with health-harming behaviours in young adults: surveys in eight eastern European countries. *Bulletin of the World Health Organization*, 92, 641-655.

Blaasvær, N., & Ames, H. (2019). Associations between parenting practices and child well-being: a systematic scoping review. Oslo: Norwegian Institute of Public Health.

Bor, W., Dean, A. J., Najman, J., & Hayatbakhsh, R. (2014). Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Australian & New Zealand Journal of Psychiatry*, 48(7), 606-616.

Buckley, N., Glasson, E. J., Chen, W., Epstein, A., Leonard, H., Skoss, R., . . . Bourke, J. (2020). Prevalence estimates of mental health problems in children and adolescents with intellectual disability: A systematic review and meta-analysis. *Australian & New Zealand Journal of Psychiatry*, 0004867420924101.

Bunting, B. P., Ferry, F. R., Murphy, S. D., O'Neill, S. M., & Bolton, D. (2013). Trauma associated with civil conflict and posttraumatic stress disorder: evidence from the Northern Ireland study of health and stress. *Journal of Traumatic Stress*, 26(1), 134-141.

Cashmore, J., & Shackel, R. (2013). The long-term effects of child sexual abuse: Australian Institute of Family Studies Melbourne.

Davis, J., Vizard, T., Forbes, N., Pearce, N., Nafilyan, V., Merad, S., . . . Goodman, A. (2019). Mental health of children and young people in England, 2017: Predictors of mental disorders. London: NHS Digital.

Einfeld, S. L., Ellis, L. A., & Emerson, E. (2011). Comorbidity of intellectual disability and mental disorder in children and adolescents: A systematic review. *Journal of Intellectual & Developmental Disability*, 36(2), 137-143.

Ferry, F., Bunting, B., Murphy, S., O'Neill, S., Stein, D., & Koenen, K. (2014). Traumatic events and their relative PTSD burden in Northern Ireland: a consideration of the impact of the 'Troubles'. *Social Psychiatry & Psychiatric Epidemiology*, 49(3), 435-446.

Goodman, A., Patel, V., & Leon, D. A. (2008). Child mental health differences amongst ethnic groups in Britain: a systematic review. *BMC Public Health*, 8(1), 258.

Gutman, L. M., Joshi, H., Parsonage, M., & Schoon, I. (2015). Children of the new century: Mental health findings from the Millennium Cohort Study. Centre for Mental Health Report. London, UK: Centre for Mental Health.

Hamblin, E. (2016). Gender and children and young people's emotional and mental health: manifestations and responses: A rapid review of the evidence. National Children's Bureau, 20-22.

Hansson, U., O'Shaughnessy, R., & Monteith, M. (2013). Maternal Mental Health and Poverty: The Impact on Children's Educational Outcomes.

Hillberg, T., Hamilton-Giachritsis, C., & Dixon, L. (2011). Review of meta-analyses on the association between child sexual abuse and adult mental health difficulties: A systematic approach. *Trauma, Violence, & Abuse*, 12(1), 38-49.

Jiang, F., Kubwimana, C., Eaton, J., Kuper, H., & Bright, T. (2020). The relationship between mental health conditions and hearing loss in low-and middle-income countries. *Tropical Medicine & International Health*.

Keane, L., & Loades, M. (2017). Low self-esteem and internalizing disorders in young people—a systematic review. *Child & Adolescent Mental Health*, 22(1), 4-15.

Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustun, T. B. (2007). Age of onset of mental disorders: a review of recent literature. *Current Opinion in Psychiatry*, 20(4), 359. doi:10.1097/YCO.0b013e32816ebc8c

Krumm, S., Becker, T., & Wiegand-Grefe, S. (2013). Mental health services for parents affected by mental illness. *Current Opinion in Psychiatry*, 26(4), 362-368.

McDonald, C. C., & Richmond, T. R. (2008). The relationship between community violence exposure and mental health symptoms in urban adolescents. *Journal of Psychiatric & Mental Health Nursing*, 15(10), 833-849.

Merrilees, C. E., Cairns, E., Goeke-Morey, M. C., Schermerhorn, A. C., Shirlow, P., & Cummings, E. M. (2011). Associations between mothers' experience with the Troubles in Northern Ireland and mothers' and children's psychological functioning: The moderating role of social identity. *Journal of Community Psychology*, 39(1), 60-75.

Morawska, A., Winter, L., & Sanders, M. (2009). Parenting knowledge and its role in the prediction of dysfunctional parenting and disruptive child behaviour. *Child: Care, Health & Development*, 35(2), 217-226.

Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Med*, 9(11), e1001349.

Oral, R., Ramirez, M., Coohy, C., Nakada, S., Walz, A., Kuntz, A., . . . Peek-Asa, C. (2016). Adverse childhood experiences and trauma informed care: the future of health care. *Pediatric Research*, 79(1), 227-233.

Pinquart, M., & Shen, Y. (2011a). Anxiety in children and adolescents with chronic physical illnesses: a meta-analysis. *Acta Paediatrica*, 100(8), 1069-1076.

Pinquart, M., & Shen, Y. (2011b). Behavior problems in children and adolescents with chronic physical illness: a meta-analysis. *Journal of Pediatric Psychology*, 36(9), 1003-1016.

Pinquart, M., & Shen, Y. (2011c). Depressive symptoms in children and adolescents with chronic physical illness: an updated meta-analysis. *Journal of Pediatric Psychology*, 36(4), 375-384.

Plöderl, M., & Tremblay, P. (2015). Mental health of sexual minorities. A systematic review. *International Review of Psychiatry*, 27(5), 367-385.

Reedtz, C., Lauritzen, C., & van Doesum, K. T. (2012). Evaluating workforce developments to support children of mentally ill parents: implementing new interventions in the adult mental healthcare in Northern Norway. *BMJ Open*, 2(3).

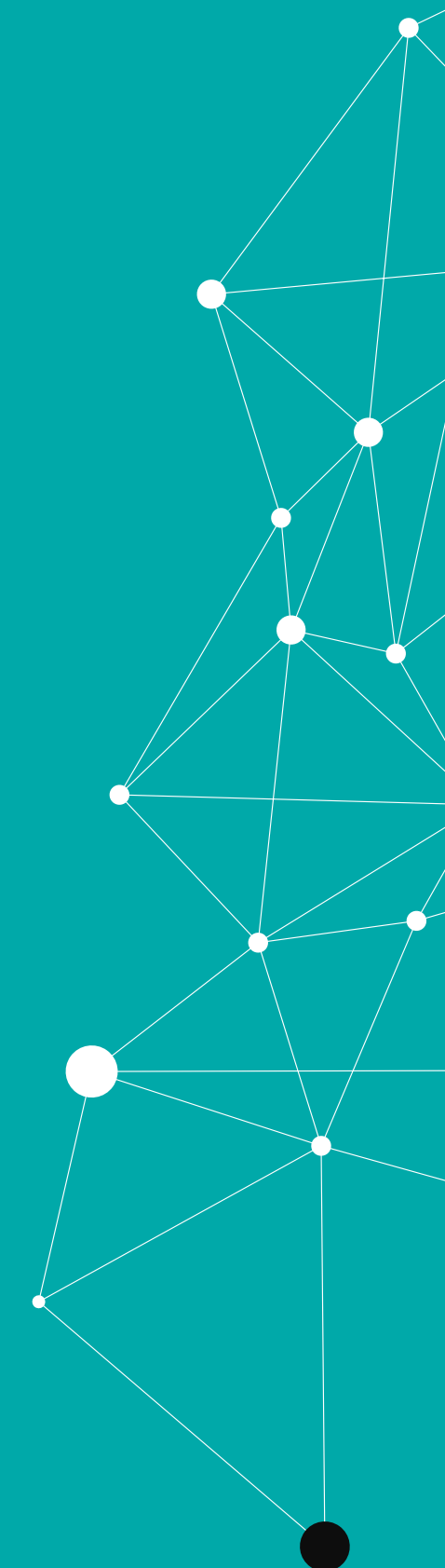
Reiss, F. (2013). Socioeconomic inequalities and mental health problems in children and adolescents: a systematic review. *Social Science & Medicine*, 90, 24-31.

Schilling, E. A., Aseltine, R. H., & Gore, S. (2007). Adverse childhood experiences and mental health in young adults: a longitudinal survey. *BMC Public Health*, 7(1), 30.

Sellström, E., & Bremberg, S. (2006). The significance of neighbourhood context to child and adolescent health and well-being: a systematic review of multilevel studies. *Scandinavian Journal of Public Health*, 34(5), 544-554.

Stirling, K., Toumbourou, J. W., & Rowland, B. (2015). Community factors influencing child and adolescent depression: A systematic review and meta-analysis. *Australian & New Zealand Journal of Psychiatry*, 49(10), 869-886.

Yap, M. B. H., Pilkington, P. D., Ryan, S. M., & Jorm, A. F. (2014). Parental factors associated with depression and anxiety in young people: A systematic review and meta-analysis. *Journal of Affective Disorders*, 156, 8-23.



10 Help-seeking

10.1 Background

Help-seeking can be defined as “any communication that occurs about a problem aimed at eliciting advice, support and assistance during times of distress and difficulty. People can therefore seek help from a range of places and people including friends, families, colleagues or neighbours. It is not just confined to seeking help from professionals and agencies.” (Brown, Sagar-Ouriaghli, & Sullivan, 2019, p. 399). This section reports findings from the survey about help-seeking by parents for their own mental health; and then help-seeking by children and young people for their mental health.

A key component of preventing mental health problems and providing effective support when it’s needed is ensuring that people can easily access help when they need it. Although help-seeking is not just about professional help, for those at risk or experiencing mental health problems there are a range of potential barriers to accessing services. Andrade et al. (2014) reported that, based on the World Health Organisation’s Mental Health Surveys across 24 countries, the main reasons, of those experiencing mental health problems, for not accessing support included: not thinking help was needed; wanting to manage the problem themselves; and previous negative experiences of services. Schnyder et al. (2017), in their systematic review of help-seeking and stigma, also highlight the barriers of: desiring to handle the problems oneself; low perceived need; low mental health literacy; financial factors; and negative attitudes towards mental health problems and help-seeking. They found that personal stigma and negative attitudes towards help-seeking are important barriers to accessing services. For parents experiencing mental health problems, there may be the additional barrier of fear of the potential consequences of disclosing mental health problems, including fear that their child(ren) could be removed (Blegen, Hummelvoll, & Severinsson, 2010).

Gulliver et al. (2010) conducted a systematic review of the literature specifically on the perceived barriers and facilitators to mental health help-seeking for young people. They reported that studies have found that only 18 to 34% of young people with depression or anxiety symptoms seek professional help, with friends and family tending to be the preferred sources of help. The key barriers they identified were: public, perceived and self-stigmatising attitudes to mental illness; concerns about confidentiality and trust; difficulty identifying the symptoms of mental illness; a lack of accessible services; a preference for self-reliance; concerns about the characteristics or qualities of the service providers; a lack of knowledge about mental health support; fear about the act of seeking help or of the service provider. Although Gulliver et al. (2010) were also searching for facilitators of help seeking there were fewer facilitators identified with the main one being positive past experiences of help-seeking.

Help-seeking attitudes and behaviours, as well as mental health problems, may also vary between different groups. Brown et al. (2019) reported that only between a quarter and a third of adults experiencing mental health problems seek professional help and a consistent finding is that men are less likely to seek help than women. They also summarised the barriers to seeking help as: preferring self-reliance; people’s perception of their mental health problems; severity of the problems; perceived need which has been found to be related to sociodemographic factors (gender, younger people) and attitudes; stigma; and the perceived effectiveness of services. For men there appear to be additional factors. These may include: gender role socialisation; emotional literacy and expression; a greater emphasis on self-reliance; coping styles; beliefs about mental health problems; lower expectations of treatment; and lower frequency of contact with services in general (Brown et al., 2019).

In Northern Ireland there are a number of studies that have explored help-seeking for mental health problems. Based on the Young Life and Times Survey of 16 year olds, Schubotz (2010, p. 44) reported “Friends and parents were identified as the main sources of support if young people suffer from emotional or mental health problems. Apart from friends, females were less likely than males to think that any other source was helpful for them when they were experiencing an emotional health problem.” In terms of professional support, the most preferred option was support from one professional only (50%), with prescription medication being the least preferred (20%).

NISRA’s (2016) Young Persons’ Behaviour & Attitudes Survey of 6831 pupils aged 11-16 also explored young people’s views about help-seeking and found that 33% of pupils from all year groups reported having concerns or worries about their mental health. Of those 36% had sought help: 73% from a family member, 41% from a friend, 24% from a GP and 22% from a teacher. The NISRA survey specifically explored barriers for those who did have concerns about their mental health but had not sought help. These included: I could handle things on my own (55%); I didn’t know where to go to get help (10%); I was too embarrassed (25%); I felt unable to speak with anyone (26%); I was too busy or didn’t have time (14%); and I asked for help before and didn’t get any (6%).

NICCY’s (2018) Still Waiting report also highlighted the potential barriers to asking for help and accessing services for young people including: a lack of knowledge of services or what’s needed; stigma about help-seeking; anticipated discrimination based on age; and negative expectations or experiences of services.

10.2 Results: Parent & Child Help-Seeking for Mental Health Problems

In the Youth Wellbeing NI Survey, parents were asked if they had sought help or advice for their mental health condition from a range of formal support services. Parents of 2-10 years and young people aged 11-19 years were asked about any contact (informal and formal) they had in the past year in relation to concerns about the child’s emotions, behaviour, concentration or difficulties getting along with people.

The most common source of support from services for parents with a mental health diagnosis was their GP (40.6%), followed by their health visitor (8.3%), someone from mental health services (8.1%) and family and child care services (8.1%) (Table 10.1). Women were more likely to have accessed help for their mental health overall and there were statistically significant associations between gender and some sources of support with women more likely to have sought help from their GP ($p < .001$), Health Visitor ($p < .001$) and someone from family and child care services ($p < .05$).

Table 10.1 Parental Help-Seeking for Mental Health Problems

Have you had help or advice for your mental health condition from:	Male	Female	Total
GP ^a	26.8%	44.3%	40.6%
Health Visitor ^b	0.8%	10.3%	8.3%
Someone from family and child care services (such as a social worker or family support worker) ^c	1.7%	3.4%	3.0%
Someone from statutory mental health services (such as the Community Mental Health team or Community Addictions Services)	6.7%	8.4%	8.1%
Voluntary sector organisation	6.3%	4.6%	4.9%
Other	2.7%	4.2%	3.8%

a $\chi^2(1) = 59.956$, $p < .001$; b $\chi^2(1) = 55.653$, $p < .001$; c $\chi^2(1) = 4.766$, $p < .05$;

For children and young people, the most common sources of support for their mental health was family and friends (16.1%); a teacher (14.5%); or someone in primary care (including their GP) (8.0%) (Table 10.2). In terms of association with gender there were some

statistically significant associations with boys more likely to have been in contact with: someone from primary care ($p < .05$); someone specialising in children's physical health ($p < .01$); someone from social care ($p < .05$); and someone working in additional support services ($p < .001$).

Table 10.2 Help-Seeking for Mental Health Problems by Children and Young People by Gender

In the past year have you been in contact with any of these people because of worries about your emotions, behaviour, concentration or difficulties getting along with people?	Male	Female	Total
Someone in your family or a close friend	15.0%	17.3%	16.1%
Telephone helpline	0.8%	0.8%	0.8%
Internet	3.4%	3.6%	3.5%
A teacher	16.0%	13.5%	14.5%
Someone from primary health care (e.g. your GP, family doctor, health visitor) ^a	9.4%	6.9%	8.0%
Someone specialising in mental health care, such as a mental health nurse	5.6%	5.6%	5.5%
Someone specialising in children's physical health	5.0%	2.9%	3.9%
Someone from social care, such as a social worker	4.0%	2.5%	3.3%
Someone working in additional support services	8.3%	4.6%	6.4%
Self-help Group	1.0%	0.7%	0.8%

a $\chi^2(1) = 6.389, p < .05$

When these findings are analysed by age, comparing children aged 2-10 with those aged 11-19, there are a number of significant associations, most strongly with the older group more likely to have had contact with family or friends; the internet; and someone specialising in mental

health care (Table 10.3). It is interesting to note that in the 2-10 group a higher percentage were identified as having contact with a teacher about their mental health than with family or friends (13.2% vs 9.4%).

Table 10.3 Help-Seeking for Mental Health Problems by Children and Young People by Age.

In the past year have you been in contact with any of these people because of worries about your emotions, behaviour, concentration or difficulties getting along with people?	2-10 years	11-19 years	Total
Someone in your family or a close friend ^a	9.4%	25.3%	16.1%
Telephone helpline ^b	0.4%	1.4%	0.8%
Internet ^c	2.5%	4.9%	3.5%
A teacher ^d	13.2%	16.9%	14.5%
Someone from primary health care (e.g. your GP, family doctor, health visitor)	8.3%	8.1%	8.0%
Someone specialising in mental health care, such as a mental health nurse ^e	3.4%	8.8%	5.5%
Someone specialising in children's physical health ^f	4.7%	3.0%	3.9%
Someone from social care, such as a social worker	2.7%	4.1%	3.3%
Someone working in additional support services	6.4%	6.6%	6.4%
Self-help Group	0.8%	0.9%	0.8%

a $\chi^2(1) = 3139.34, p < .001$; b $\chi^2(1) = 38.64, p < .01$; c $\chi^2(1) = 312.51, p < .001$; d $\chi^2(1) = 37.85, p < .01$; e $\chi^2(1) = 340.29, p < .001$; f $\chi^2(1) = 35.75, p < .05$

Overall, females tended to engage in more help-seeking behaviours. The most common source of help was from the GP.

We examined the help-seeking behaviour of young people meeting the threshold for an anxiety or mood disorder as measured by RCADS. Over 65% (65.5%) of

young people displaying symptoms of anxiety and depression had sought help for their mental health problems in the past year and this was statistically significant ($\chi^2(1) = 271.45, p < .001$). Children and young people meeting the threshold for common mood or anxiety disorder were five times more likely to seek help (odds ratio [OR] 5.848, 95% CI 4.66–7.34; $p < .001$).

10.3 Overview & Key Statistics

Overall, 46.2% of mothers¹ and 28.8% of fathers had accessed support services in relation a mental health diagnosis. GPs were the most common support service (40.6%) followed by health visitors (8.3%), mental health services (8.1%) and family and child care services (8.1%) and women were more likely than men to have accessed help from G.Ps, health visitors or someone from family and child care services.

For children and young people, the most common sources of support for their mental health was family and friends (16.1%), followed by teachers (14.5%), or someone in primary care (including GPs) (8.0%). These findings are keeping with previous research exploring help-seeking for mental health problems among 16 years olds in NI (Schubotz, 2010). Boys were more likely than girls to have been in contact with teachers, someone from primary care, someone specialising in children's physical health, someone from social care or someone working in additional support services. Again, this reflects the extant literature which has identified females as more likely to seek support from informal rather formal sources when they were experiencing an emotional health problem (Schubotz, 2010).

It is also worth noting that help was sought by more children on the internet than via a helpline (3.5% vs 0.8%), although both percentages were relatively low. Young people aged 11-19 years were more likely to have had contact with family or friends, the internet, and someone specialising in mental health care than younger

children. Interestingly, children aged 2-10 years were reported as having higher levels of contact with a teacher about their mental health than with family or friends (13.2% vs 9.4%). This is likely to be related to teachers raising concerns about a child's development or behaviour in the first instance and/or parents seeking support from teachers, rather than children self-identifying.

- GPs were the most common support service for parents with a mental health diagnosis (40.6%).
- Women were more likely than men to have accessed help for their mental health.
- Women and more likely to have sought help from GPs (44.3% vs 26.8%), health visitors (10.3% vs 0.8%) and family and child care services (3.4% vs 1.7%).
- For children and young people, the most common sources of support for their mental health was family and friends (16.1%), teachers (14.5%); or someone in primary care (including their GP) (8.0%).
- Children and young people displaying symptoms of a mood and anxiety disorder were 5 times more likely to seek help and 65.5% of children and young people meeting the threshold for a mood and anxiety disorder in the past 12 months had done so.
- Boys were more likely than girls to seek support from: teachers (16.0% vs 13.5%); someone from primary care (9.4% vs 6.9%); someone specialising in children's physical health (5.0% vs 2.9%); someone from social care (4.0% vs 2.5%); and someone working in additional support services (8.3% vs 4.6%).
- Young people aged 11-19 years were more likely than younger children to have had contact with family or friends (25.3% vs 9.4%); a teacher (16.9% vs 13.2%); the internet (4.9% vs 2.5%); someone specialising in mental health care (8.8% vs 3.4%); and someone from social care (4.1% vs 2.7%).

¹ Most respondents were mothers or fathers, a very small percentage identified as other caregivers.

10.4 References

Andrade, L. H., Alonso, J., Mneimneh, Z., Wells, J., Al-Hamzawi, A., Borges, G., . . . De Graaf, R. (2014). Barriers to mental health treatment: results from the WHO World Mental Health (WMH) Surveys. *Psychological Medicine*, 44(6), 1303.

Blegen, N. E., Hummelvoll, J. K., & Severinsson, E. (2010). Mothers with mental health problems: a systematic review. *Nursing & Health Sciences*, 12(4), 519-528.

Brown, J. S., Sagar-Ouriaghli, I., & Sullivan, L. (2019). Help-Seeking Among Men for Mental Health Problems. In *The Palgrave Handbook of Male Psychology and Mental Health* (pp. 397-415): Springer.

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry*, 10(1), 113.

Northern Ireland Commissioner for Children & Young People. (2018). *Still waiting: a rights based review of mental health services and support for children and young people in Northern Ireland*. Belfast: NICCY.

Northern Ireland Statistics and Research Agency. (2016). *Young Persons' Behaviour and Attitudes Survey 2016*. Belfast: NISRA.

Schnyder, N., Panczak, R., Groth, N., & Schultze-Lutter, F. (2017). Association between mental health-related stigma and active help-seeking: systematic review and meta-analysis. *The British Journal of Psychiatry*, 210(4), 261-268.

Schubotz, D. (2010). *The mental and emotional health of 16-year olds in Northern Ireland: Evidence from the Young Life and Times survey*. Belfast: Patient Client Council.



11 Conclusion & Next Steps

11.1 Conclusion

The Youth Wellbeing NI Survey delivers the first ever epidemiological data on the prevalence of mental health problems and disorders among children and young people in Northern Ireland. Based on interviews with more than 3,000 children and young people, and more than 2,800 interview with parents, initial analyses provide prevalence estimates of children and young people at risk of emotional and behaviour disorders requiring further assessment and support, those with common mood or anxiety disorders, oppositional defiant disorder and conduct disorder, PTSD, CPTSD, and those at risk of autism spectrum disorders, eating disorders, or developing psychosis.

These indicate that a substantial number of children in NI experience emotional and behavioural problems and that, bearing in mind methodological differences, rates of the most prevalent disorders, mood and anxiety disorders, are elevated in comparison with the UK. Previous studies of adult populations show that Northern Ireland has 25% higher rates of common mental health disorders than England, Scotland and Wales (Bunting, Murphy, O'Neill & Ferry, 2012; McManus, Bebbington, Jenkins, & Brugha, 2016), and it appears that the picture is similar for young people as well. However, estimates of young people at risk of other disorders or mental health problems, although elevated in relation to certain disorders or age and gender subgroups, are, on the whole, in keeping with those found in the UK or internationally.

Uniquely, the Youth Wellbeing Survey reports on the prevalence of both post-traumatic stress disorder and complex post-traumatic stress disorder, as well the prevalence of psychotic like experiences, for the first time ever in a general population sample of children and young people. It is also the first UK survey to report on the prevalence of adverse childhood experiences (ACEs) in a youth population, enabling further exploration of how these experiences relate to the development of mental health problems among this group.

This analysis is just the first step in teasing out the complex interactions between child and adolescent mental health problems and the broad array of potential predictive and mediating factors collected as part of the Youth Wellbeing NI Survey. Future work will include collaborating with key stakeholders involved in mental health policy, service design and commissioning, as well as those engaged in clinical, education and social care practice to make optimal use of these important data so they inform the development of NI's Mental Health Strategy and services.

Emotional & Behavioural Problems & Disorders

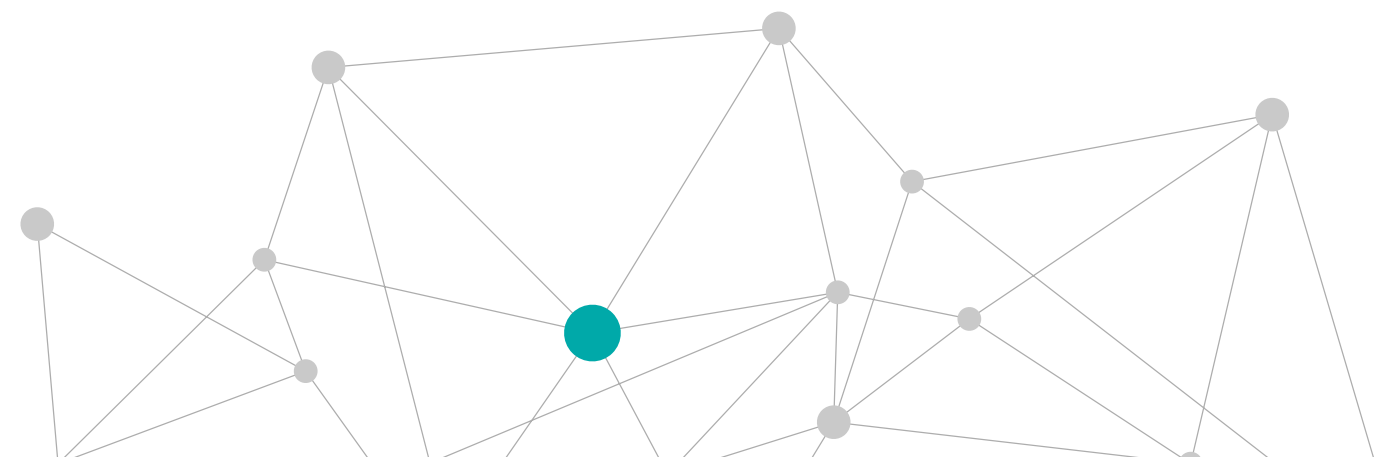
Based on the Strengths and Difficulties Questionnaire, approximately 1 in 8 children and young people in Northern Ireland experience emotional difficulties, 1 in 10 conduct problems and 1 in 7 problems with hyperactivity. Rates of behavioural problems were higher among males and, although there was no overall difference between males and females in relation to emotional problems, there were significant variations within age and gender categories. These findings are broadly in keeping with the findings from other UK surveys that have used the SDQ (Fink et al., 2015; University of Essex & Institute for Social & Economic Research, 2020), although it is notable that problems with peers and prosocial behaviour were substantially lower in NI than those identified in recent UK surveys. However, the higher rate of emotional problems among males aged 5-10 years, compared to females (19.3% vs 15.3%), as well as the high overall rate within this age group, differs from other UK findings (Sadler et al., 2018), highlighting this as a potentially important area for further study and service development within the NI context.

Lifetime estimates of oppositional defiant disorder were 9.9% and 5.5% for conduct disorder, findings in keeping with international research which has indicated that approximately 1 in 8 children meet the diagnostic criteria for oppositional defiant disorder and 1 in 16 a conduct disorder at some point in childhood (Merikangas et al., 2010). Also in line with previous research, rates were higher amongst boys than girls (oppositional defiant disorder, 12% vs 7.3%; conduct disorder, 6.9% vs 4.1%), although there were no significant differences by levels of deprivation. Similarly, the Mental Health of Children and Young People survey (Davis et al., 2019) did not find an association between area level deprivation and increased rates of behavioural disorders, although individual level SES factors such as being in receipt of benefits were associated and it may be that a similar association emerges through further analyses.

The prevalence estimate for any common mood or anxiety disorder was 12.6%, a higher rate compared to those identified in the Mental Health of Children and Young People in England survey in 2017 (8.1%; Sadler et al., 2018), although the use of different questionnaires and methodologies needs to be borne in mind. Panic disorder was the most common (6.8%), followed by separation anxiety disorder (5.2%), major depressive disorder (5.0%), social phobia (3.8%), obsessive compulsive disorder (3.1%) and generalised anxiety disorder (2.7%). Although rarely statistically significant, rates of social anxiety disorder, major depressive disorder, separation anxiety disorder and panic disorder were higher for older girls compared to boys in the same

age group. However, similarly to the SDQ results, boys in the 5-10 year old age group had significantly higher levels of major depressive disorder separation anxiety disorder, social anxiety disorder, generalised anxiety disorder panic disorder and obsessive compulsive disorder than girls aged 5-10 years, reinforcing the need to focus future research and practice efforts in better understanding the emotional needs of this age group. Although living in an area of high deprivation was not generally associated with increased levels of mood or anxiety disorders (with the exception of panic disorder), it was associated with higher levels of emotional, behaviours and hyperactivity problems more generally, thus highlighting the need for increased access to support services in these areas.

A wide range of child, family, socioeconomic factors were individually associated with increased levels of any common mood or anxiety disorder among children and young people in NI. However, when all factors were analysed simultaneously using regression analysis, only six remained significantly associated, demonstrating strong consensus with previous research, in particular the Mental Health of Children and Young People in England survey (Davis et al., 2019), that a young person's exposure to family trauma and adversity, their health status, suspected or diagnosed special educational needs (related to emotions, behaviour, concentration or getting along with people;) household receipt of welfare benefits; and parental mental health problems are key risk factors.



Indeed, by far the most significant factor was the young person's experiences of family trauma and adversity, which increased the likelihood of the young person having any mood or anxiety disorder by a factor of eight. In this study a range of childhood adversities were measured, including child maltreatment and neglect, as well as other common family difficulties such as parent substance abuse, domestic violence, parental separation and parental incarceration. Overall, 52.2% of young people aged 11-19 years reported experiencing no childhood adversities, 41.8% 1-2 childhood adversities and 5.7% three or more childhood adversities, with girls experiencing higher numbers of childhood adversities than males. These rates are lower than those reported in research with young adults in a NI university population (McGavock & Spratt, 2017), which found that 12.3% had experienced four or more childhood adversities. While various methodological differences likely contribute to some of these differences, not least the fact that the Youth Wellbeing NI Survey surveyed a much younger population, the high response rate and representativeness achieved in this study would suggest that rates of adversity exposure in the youth population are somewhat lower than previously thought.

Regardless of the exposure rate, and in keeping with the wealth of literature examining the association between trauma and mental health, initial analysis identified childhood adversity as a key driver in the development of common mood and anxiety disorders. As noted early, this analysis is just the first step and future analyses will focus on exploring the complex interactions between child and adolescent mental health problems and the wide range of potential predictive and mediating factors collected as part of the Youth Wellbeing NI Survey.

Stress Related Disorders

The findings from the Youth Wellbeing NI Survey indicate that 36.8% of young people aged 11-19 years in NI have experienced trauma, with witnessing violence (17.0%), having a serious accident (16.8%), and experiencing the sudden death of a loved one (10.7%) being the most common traumatic experiences. The estimated prevalence of young people with PTSD was 1.5%, a somewhat higher figure than that identified in the Mental Health of Children and Young People in England survey (Sadler et al., 2018), suggesting elevated levels within the NI youth population. Rates of CPTSD, available for the first time for a sample of UK adolescents, indicate that 3.4% of young people in NI meet the criteria for this disorder. Although adult and adolescent females generally tend to have higher rates of PTSD than males (Christiansen & Hansen, 2015; Lewis et al., 2019), PTSD was higher for males in NI (1.8% vs 1.1%), while, female adolescents in NI were twice as likely to have CPTSD (4.6% vs 2.3%). Surprisingly, PTSD and CPTSD were not associated with deprivation although as already discussed, limited association between area level deprivation and mental health disorders has also been observed in other UK research (Davis et al., 2019). However, type of trauma exposure was strongly associated with each disorder, with exposure to war and interpersonal violence associated with PTSD and CPTSD with experiences of sexual trauma and familial violence strongly associated with CPTSD. Together, these findings indicate that gender and trauma exposure type play a significant role in the aetiology of each disorder in NI which will be further explored in future analyses.

Young People at Risk of other Mental Health Problems

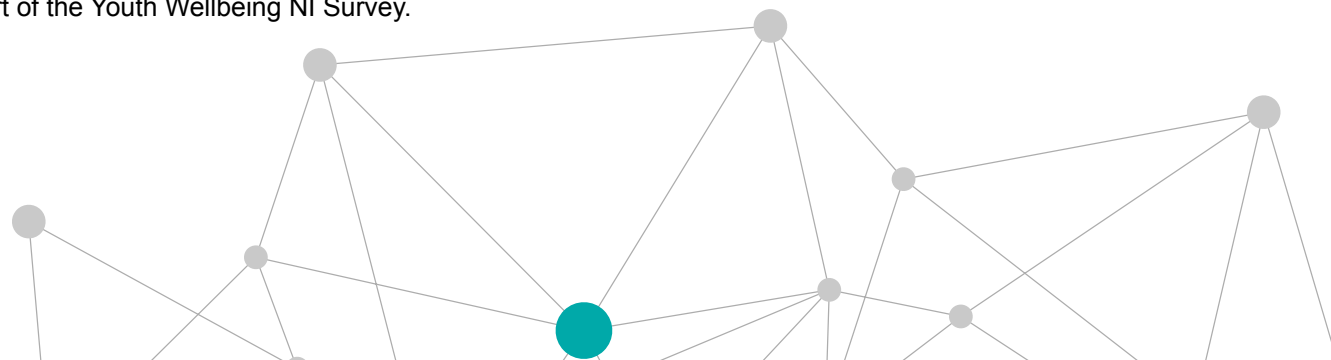
The Youth Wellbeing NI Survey also identified children and young people at risk of autism spectrum disorder, psychotic-like experiences and eating disorders using a variety of parent-report and self-report screening measures. Screening is a key component of any service that aims to treat emerging health conditions at an early stage, and ultimately prevent the emergence of mental health problems. Once it is determined that an individual is at-risk, further diagnostic tests or assessments may be carried out, or long-term follow-up may be indicated. Thus the survey aimed not only to establish the prevalence of young people at risk of specific mental health problems, but also to provide evidence to inform future decisions about the utility of various screening tools in the wider population.

In the Youth Wellbeing NI Survey, 7.7% of children and young people in NI were found to be at risk of autism using the NICE recommended screening tool, the AQ-10 (Allison, Auyeung, & Baron-Cohen, 2012), as well as the M-CHAT (Robins et al., 2014) for younger children; using the PQ-16 screening tool (Ising et al., 2012), almost 19% met the threshold for psychotic-like experiences; and 16.2% engaged in a pattern of disordered eating as measured by a brief eating disorder screening questionnaire (Morgan, Reid, & Lacey, 1999). As is commonly found in the UK and international literature, boys were at greater risk of autism than girls (9.2% vs 6.1%) and girls were at greater risk of eating disorders than males (22.9% vs 10.0%). There were no gender differences in relation to psychotic-like experiences, or area level deprivation in relation to autism, psychotic-like experiences, or disordered eating.

While the estimates for autism and disordered patterns of eating are higher than previous research focused on specific diagnostic criteria (McConkey, 2020; Sadler et al., 2018), it is important to note that these figures do not

represent a formal diagnosis but, instead, highlight at risk groups potentially requiring formal assessment. Similarly, the majority of those with psychotic-like experiences are unlikely to reach clinical thresholds, in terms of severity or frequency, for psychosis. Nonetheless, there is evidence to suggest that a significant minority may go on to develop a diagnosable psychotic disorder (Linscott & Van Os, 2013), and psychotic experiences often act as markers for non-psychotic mental health disorders (Fusar-Poli et al., 2014). In deciding on the feasibility and utility of introducing screening measures, the risk of false positives and potential unnecessary stigmatisation of children and young people needs to be weighed against the risk posed by unchecked progression from being 'at risk' to meeting the threshold for a clinical diagnosis.

The extremely high mortality rates for eating disorders (Arcelus, Mitchell, Wales, & Nielsen, 2011), together with the communication difficulties and problems developing and maintaining friendships children with autism spectrum disorder often display, mean that a late or missed diagnosis can have profound implications for a child's future. Equally, in recent years, early intervention in the pathways to psychotic illnesses such as schizophrenia have been demonstrated to improve prognosis, and if targeted in the early stages, may delay or actually prevent onset (Fusar-Poli et al., 2012). In the context of the Youth Wellbeing NI Survey, it is also worth noting that the 3.4% of boys and 1.9% of girls aged 2-4 years old who screened positive on the screening tool for autism, are also potentially at high risk for other developmental disorders or delays. Equally important from a preventative perspective is the finding that 1 in 14 young people in NI (7.3%) reported engaging in induced vomiting, which is a potentially serious negative health behaviour, particularly if the young person is already underweight.



Self-Injury & Suicidal Thoughts or Attempts

Almost 1 in 10 of 11 to 19 year olds in NI reported having engaged in self-injurious behaviour and roughly 1 in 8 reported have thought about or attempted suicide, with 6.6% having made a plan and 3.5% having made an attempt. Compared to rates of self-injury reported in other studies (i.e. 11.9-13.7%; Lim et al., 2019; Mars et al., 2014), the rate of self-injury among boys and girls in Northern Ireland aged 11-15 years (4.6% & 6.5% respectively) and boys aged 16-19 years (7.1%) was lower. However, the rate of self-injury among girls aged 16-19 years (19.1%) was considerably higher, as was the rate of suicide ideation or attempts at 22.7%. This finding is consistent with recent data on the occurrence of self-injury and suicidal thoughts or behaviours among female university students in Northern Ireland (O'Neill et al., 2018) and highlights older teenage girls as a significant at risk group. Nonetheless, rates for boys and girls in both the younger and older teenage groups are concerning given the link between self-injury, suicide ideation and future suicide attempts (Mars et al., 2019). Future analyses will explore to what extent these behaviours are associated with different mental health problems and disorders and how they relate to childhood trauma and adversity and other experiences.

Behaviours & Experiences

In addition to being associated with a wide range of child demographics, family, socioeconomic and neighbourhood factors, the development of mental health problems are also related to a wide range of behaviours and experiences that children and young people engage in, or encounter. Whilst not exhaustive, the Youth Wellbeing NI Survey provides data on a range of important variables commonly identified in the literature as having a strong relationship with mental health difficulties and disorders, including social media use, bullying and alcohol and drug use.

Initial analysis found that 4.7% of 11-19 year olds in NI met the criteria for problematic social media use, 16.8% had experienced 'traditional' bullying and 14.9% cyberbullying. Rates of problematic social media use were higher for females than males (6.4% vs 3.1%) and females were more likely than males to experience cyberbullying (17.9% vs 11.9%). However, males were more likely than females to experience 'traditional' bullying (20.7% vs 13.0%). One-in-ten 11 to 19 year olds have ever used drugs and close to 2 in 5 young adults aged 16-19 years (40.9%) met the criteria for problem drinking (7.0% vs 3.1%). There were no gender difference in problematic drinking and again, deprivation was not significantly associated with either problematic social media use, problem drinking, drug use or experiences of bullying. Future analyses will focus on examining the relationship between these experiences and behaviours with different mental health problems and how they interact with other child, family, socioeconomic and neighbourhood factors.

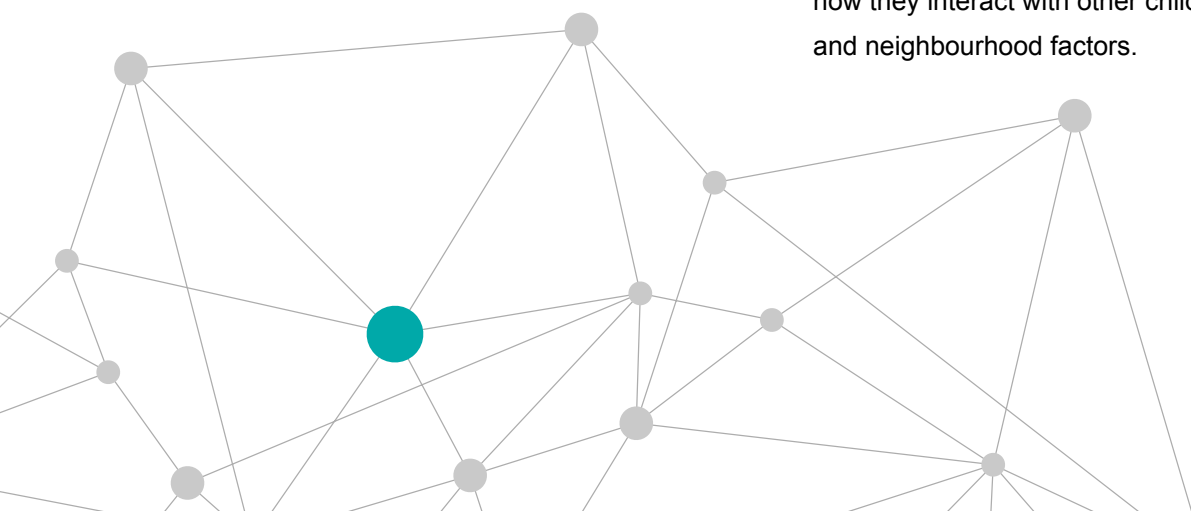
Parental Mental Health

As highlighted in previous discussion, parental mental health was one of the key factors shown to have a strong association with the development of mood and anxiety disorders among children and young people. Findings from the Youth Wellbeing NI Survey confirm the high rate of self-reported parental mental health problems previously identified in NI research (Abel et al., 2019), with 15.8% of parents reporting having a mental health problem in the past year and 23.8% prior to this. In line with other international research, anxiety and depression, including postnatal depression, were the most commonly diagnosed disorders (Layard, Clark, Knapp, & Mayraz, 2007; O'Doherty & Doherty, 2010). Similarly, rates of current mental health problems (measured using the GHQ-12) were 22% which, while high, were comparable to rates identified elsewhere in the UK (Public Health England, 2020).

Although there were no significant differences between mothers and fathers, it should be noted that the parent respondents in this survey were primarily mothers, and that higher levels of poor maternal health compared to paternal mental health are routinely observed across the literature. Parents in the most deprived areas in NI also had higher levels of mental health problems (31.9%) than those in the least deprived areas (17.2%). Taken together and, bearing mind the under-representation of fathers in the Youth Wellbeing NI Survey, these findings highlight poor parental mental health as relatively common in NI and, as such, a key target for intervention aimed at improving the mental wellbeing of both parents and their children, particularly those living in areas of high deprivation.

Seeking Help & Support

Overall, 46.2% of mothers and 28.8% of fathers had accessed support services in relation to mental health problems. GPs were the most common support service (40.6%) followed by health visitors (8.3%), mental health services (8.1%) and family and child care services (8.1%) and women were more likely than men to have accessed help from GPs, health visitors or someone from family and child care services. For children and young people, the most common sources of support for their mental health was family and friends (16.1%), followed by teachers (14.5%), or someone in primary care (including GPs) (8.0%). The findings are keeping with previous research exploring help-seeking for mental health problems among 16 years olds in NI (Schubotz, 2010) and gender differences in the sources of support sought reflect the extant literature which has identified females as more likely to seek support from informal rather formal sources (Schubotz, 2010). It is also worth noting that more children sought help from the internet than via helplines (3.5% vs 0.8%), although both percentages were low. Thus, like, adults, children and young people exhibit a preference for face-to-face contact and although much of the support is sought from relevant professionals, support from family and friends play a major role. While internet resources can be helpful, the primary aim in preventing the development of mental health problems and supporting children and young people experiencing emotional distress should lie with increasing mental health awareness. Removing stigma and providing clear pathways for directing those seeking help to both informal and more formal sources of support should be a key aim across both child and adult populations.



11.2 Future plans for analysis

As noted in the discussion this report represents the first stage in the process of analysing and interpreting the rich data collected as part of the Youth NI. In this report we have presented initial findings and highlighted the potential implications but have avoided making specific recommendations, recognising that this entails further consideration and collaboration to affect meaningful, evidence based system change. The next stage will involve close collaboration with key stakeholders working in the fields of mental health, education and social care to consider the implications of the findings for future policy, service commissioning and practice in Northern Ireland. Importantly, these findings will inform the development of the NI Mental Health Strategy due for publication in 2021. In order to make optimal use of the data, additional resources have also been allocated to provide those working in relevant fields with additional data analysis and disaggregation to inform planning at regional and local levels. There is also a detailed plan for additional analyses to further interrogate the data and investigate the complex interactions, risk and protective factors in children and young people's mental health and wellbeing in Northern Ireland. The main areas will include:

- further analysis of the predictors of common mood and anxiety disorders in children and adolescents;
- examining intergenerational experiences of childhood adversity and their association with child and parent mental health;
- identifying the predictors of PTSD and Complex PTSD;
- exploring the association between disordered eating and trauma exposure in children and young people in NI;
- exploring the relationship between area level and individual level socio-economic factors and their relationship with different mental health problems.

11.3 Study Limitations

As explained at the start of this report, the approach of the research team for this survey was based on the premise that the different perspectives on mental health (mainly bio-medical, psychological and social) are all important and necessary. Their relative importance may vary between issues and contexts, and all have their strengths and limitations, but any one perspective is insufficient to understanding the complexities of the issues involved. This meant that the survey was designed to try to collect data which would enable as comprehensive and multi-factorial exploration of the mental health of children and young people as possible. Inevitably, even with this broad scope, not all issues could be included and even the relatively high number that were included could not be explored in substantial depth. This reflects some of the more practical and ethical considerations of the survey design, including what is a reasonable length of interview, especially for children. As with any research design, there are also potential sources of bias. Although this survey achieved a relatively high response rate, there is still the possibility that the sample who did participate are not precisely representative of those who decided not to participate and of the wider population. The standardised measures used, although well tested, do also have their limitations. Nonetheless, the data collected and the analyses that have already been completed are extremely useful for further developing our understanding of the mental health of children and young people and informing how that can be most effectively supported.

11.4 References

- Abel, K. M., Hope, H., Swift, E., Parisi, R., Ashcroft, D. M., Kosidou, K., . . . Pierce, M. (2019). Prevalence of maternal mental illness among children and adolescents in the UK between 2005 and 2017: a national retrospective cohort analysis. *The Lancet Public Health*, 4(6), e291-e300.
- Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief "red flags" for autism screening: the short autism spectrum quotient and the short quantitative checklist in 1,000 cases and 3,000 controls. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(2), 202-212. e207.
- Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with anorexia nervosa and other eating disorders: a meta-analysis of 36 studies. *Archives of General Psychiatry*, 68(7), 724-731.
- Christiansen, D. M., & Hansen, M. (2015). Accounting for sex differences in PTSD: A multi-variable mediation model. *European journal of psychotraumatology*, 6(1), 26068.
- Davis, J., Vizard, T., Forbes, N., Pearce, N., Nafilyan, V., Merad, S., . . . Goodman, A. (2019). Mental health of children and young people in England, 2017: Predictors of mental disorders. London: NHS Digital.
- Fink, E., Patalay, P., Sharpe, H., Holley, S., Deighton, J., & Wolpert, M. (2015). Mental health difficulties in early adolescence: a comparison of two cross-sectional studies in England from 2009 to 2014. *Journal of Adolescent Health*, 56(5), 502-507.
- Fusar-Poli, P., Bonoldi, I., Yung, A. R., Borgwardt, S., Kempton, M. J., Valmaggia, L., . . . McGuire, P. (2012). Predicting psychosis: meta-analysis of transition outcomes in individuals at high clinical risk. *Archives of General Psychiatry*, 69(3), 220-229.
- Ising, H. K., Veling, W., Loewy, R. L., Rietveld, M. W., Rietdijk, J., Dragt, S., . . . Linszen, D. H. (2012). The validity of the 16-item version of the Prodromal Questionnaire (PQ-16) to screen for ultra high risk of developing psychosis in the general help-seeking population. *Schizophrenia Bulletin*, 38(6), 1288-1296.
- Layard, R., Clark, D., Knapp, M., & Mayraz, G. (2007). Annex D: Cost-benefit analysis of psychological therapy. Department of health Improving Access to Psychological Therapies (IAPT) programme: An outline business case for the national rollout of local psychological therapy services. London: Department of Health.
- Lewis, S., Arseneault, L., Caspi, A., Fisher, H. L., Matthews, T., Moffitt, T. E., . . . Danese, A. (2019). The epidemiology of trauma and post-traumatic stress disorder in a representative cohort of young people in England and Wales. *The Lancet Psychiatry*, 6(3), 247-256. doi: [https://doi.org/10.1016/S2215-0366\(19\)30031-8](https://doi.org/10.1016/S2215-0366(19)30031-8)
- Linscott, R., & Van Os, J. (2013). An updated and conservative systematic review and meta-analysis of epidemiological evidence on psychotic experiences in children and adults: on

the pathway from proneness to persistence to dimensional expression across mental disorders. *Psychological medicine*, 43(6), 1133-1149.

Mars, B., Heron, J., Klonsky, E. D., Moran, P., O'Connor, R. C., Tilling, K., . . . Gunnell, D. (2019). Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: a population-based birth cohort study. *The Lancet Psychiatry*, 6(4), 327-337.

McConkey, R. (2020). The rise in the numbers of pupils identified by schools with autism spectrum disorder (ASD): a comparison of the four countries in the United Kingdom. *Support for Learning*, 35(2), 132-143.

McGavock, L., & Spratt, T. (2017). Children exposed to domestic violence: Using adverse childhood experience scores to inform service response. *British Journal of Social Work*, 47(4), 1128-1146.

Merikangas, K. R., He, J.-p., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., . . . Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980-989.

Morgan, J. F., Reid, F., & Lacey, J. H. (1999). The SCOFF questionnaire: assessment of a new screening tool for eating disorders. *BMJ*, 319(7223), 1467-1468.

O'Doherty, Y. K., & Doherty, T. D. (2010). Reconnecting with life. Personal experiences of revering from mental health problems in Ireland. Dublin: Health Research Board.

O'Neill, S., McLafferty, M., Ennis, E., Lapsley, C., Bjourson, T., Armour, C., . . . Murray, E. (2018). Socio-demographic, mental health and childhood adversity risk factors for self-harm and suicidal behaviour in College students in Northern Ireland. *Journal of Affective Disorders*, 239, 58-65.

Public Health England. (2020). Statistical commentary: children living with parents in emotional distress, 2020 update. London: Public Health England.

Robins, D. L., Casagrande, K., Barton, M., Chen, C.-M. A., Dumont-Mathieu, T., & Fein, D. (2014). Validation of the modified checklist for autism in toddlers, revised with follow-up (M-CHAT-R/F). *Pediatrics*, 133(1), 37-45.

Sadler, K., Vizard, T., Ford, T., Marcheselli, F., Pearce, N., Mandalia, D., . . . Goodman, R. (2018). Mental health of children and young people in England, 2017. London: NHS Digital.

University of Essex, & Institute for Social & Economic Research. (2020). Understanding Society: Waves 1-9, 2009-2018 and Harmonised BHPS: Waves 1-18, 1991-2009. [data collection]. Retrieved from <http://doi.org/10.5255/UKDA-SN-6614-13>

12 Appendices

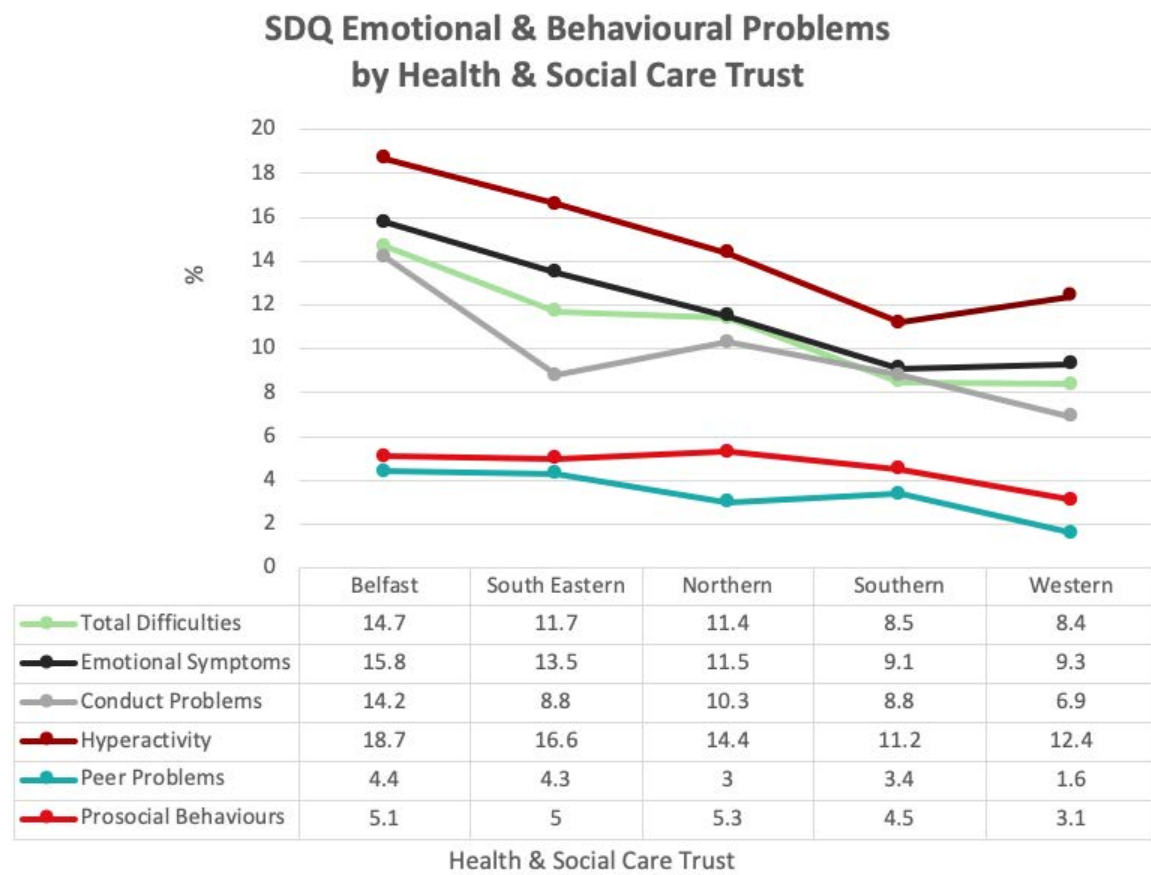
12.1 Results: Health & Social Care Trust

The Northern Ireland health system is organised geographically in five Health and Social Care Trusts. Each Trust is responsible for local planning and delivery of health and social care. There is variation across the

Trusts in terms of demography and other relevant factors including population density, rural and urban settings, and availability of services. These factors have not been controlled for in this analysis and therefore findings are not generalizable at a regional level.

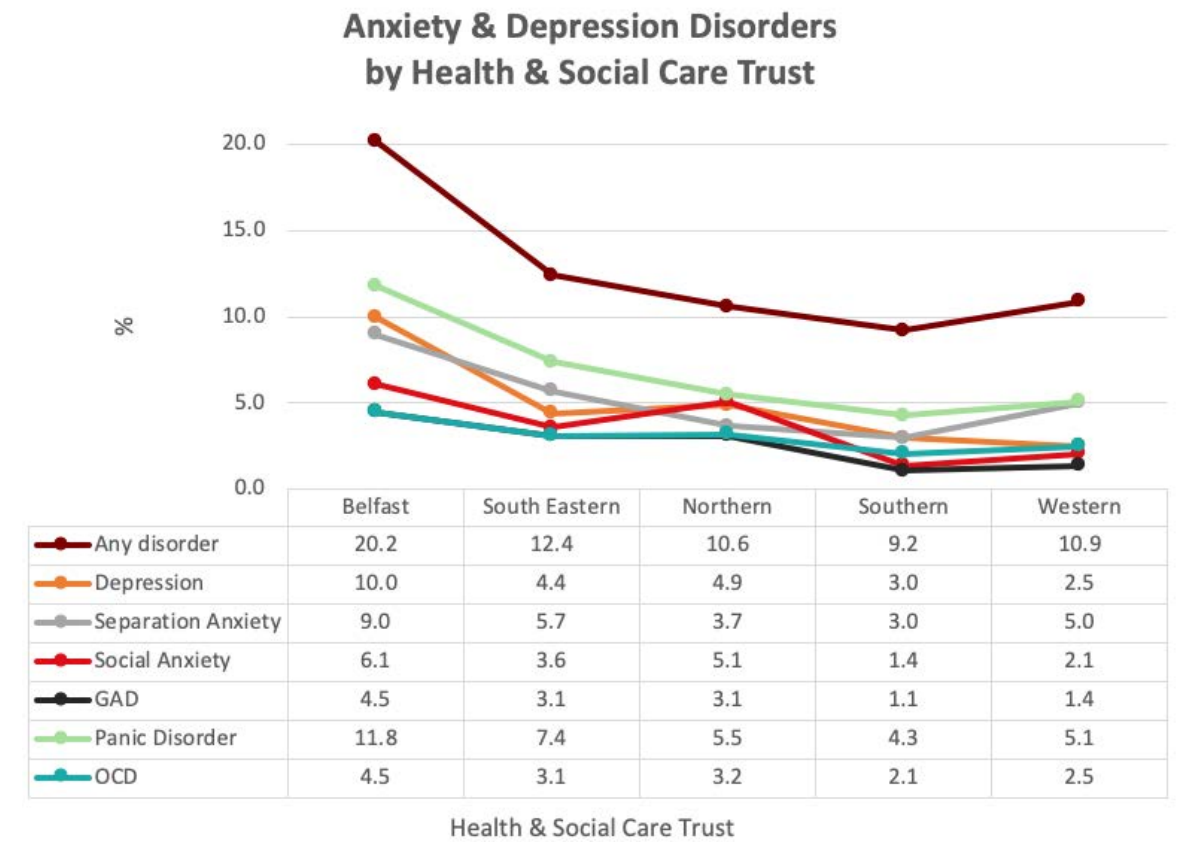
12.1.1 Emotional & Behavioural Problems

Figure 12.1 SDQ Behaviours, Problems & Symptoms by Health & Social Care Trust



12.1.2 Anxiety & Mood Disorders

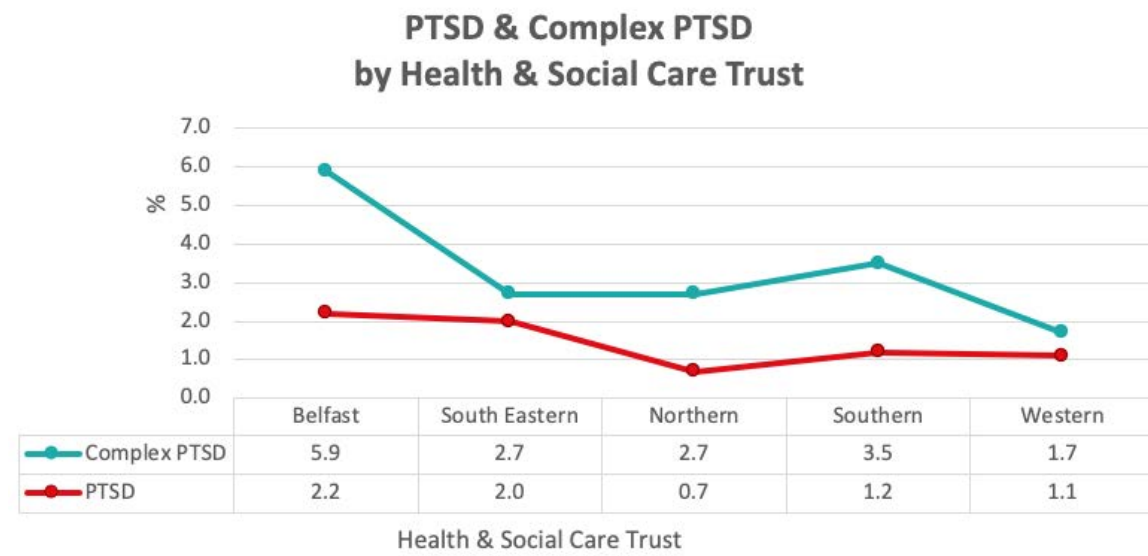
Figure 12.2 Anxiety & Mood Disorders by Health & Social Care Trust



Any Disorder $\chi^2(8, N = 2292) = 31.04, p < .001$; Depression $\chi^2(4, N = 2933) = 46.72, p < .001$; Separation Anxiety $\chi^2(8, N = 2935) = 26.72, p = .001$; Social Anxiety $\chi^2(8, N = 2933) = 43.08, p < .001$; GAD $\chi^2(8, N = 2937) = 31.16, p < .001$; Panic Disorder $\chi^2(8, N = 2928) = 37.80, p < .001$; OCD $\chi^2(8, N = 2932) = 17.06, p = .030$;

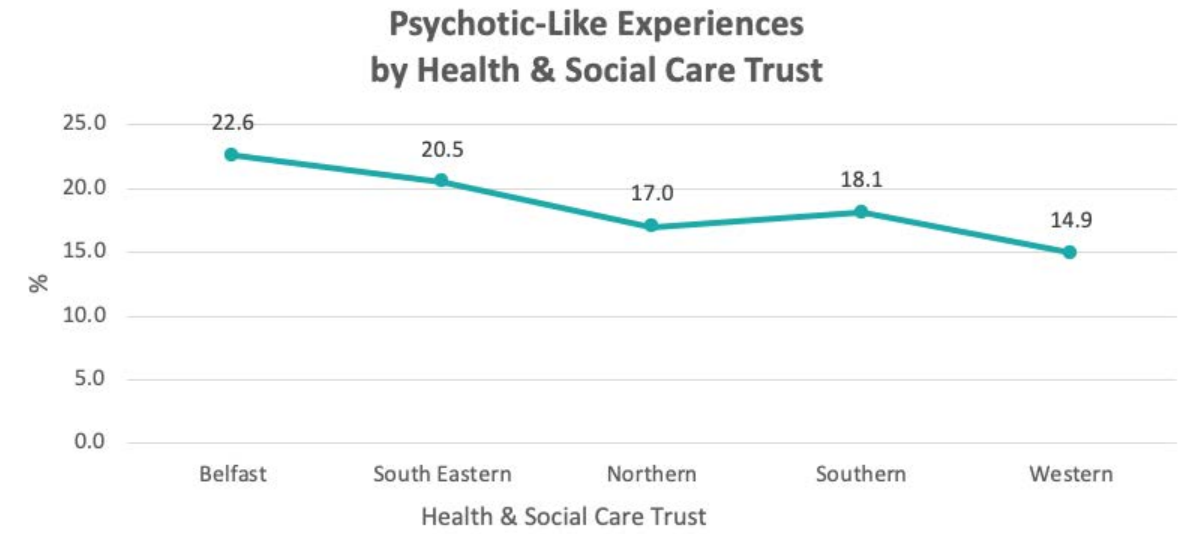
12.1.3 Trauma & Stress-Related Disorders

Figure 12.3 Trauma & Stress-Related Disorders by Health & Social Care Trust



12.1.4.2 Psychotic-Like Experiences

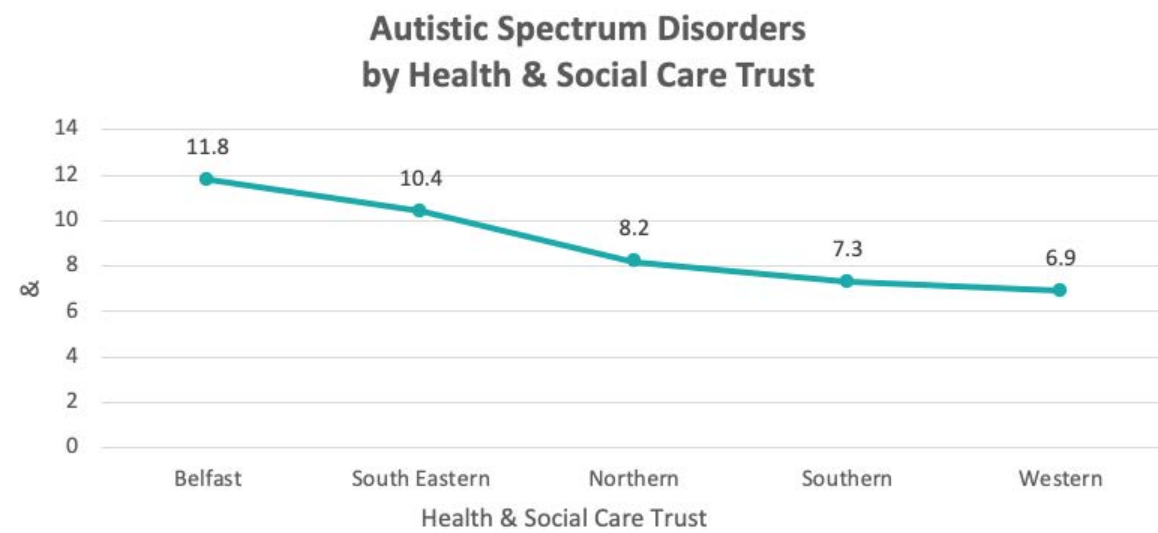
Figure 12.5 Psychotic-Like Experiences by Health & Social Care Trust



12.1.4 Young People at risk of other Mental Health Problems

12.1.4.1 Autistic Spectrum Disorders

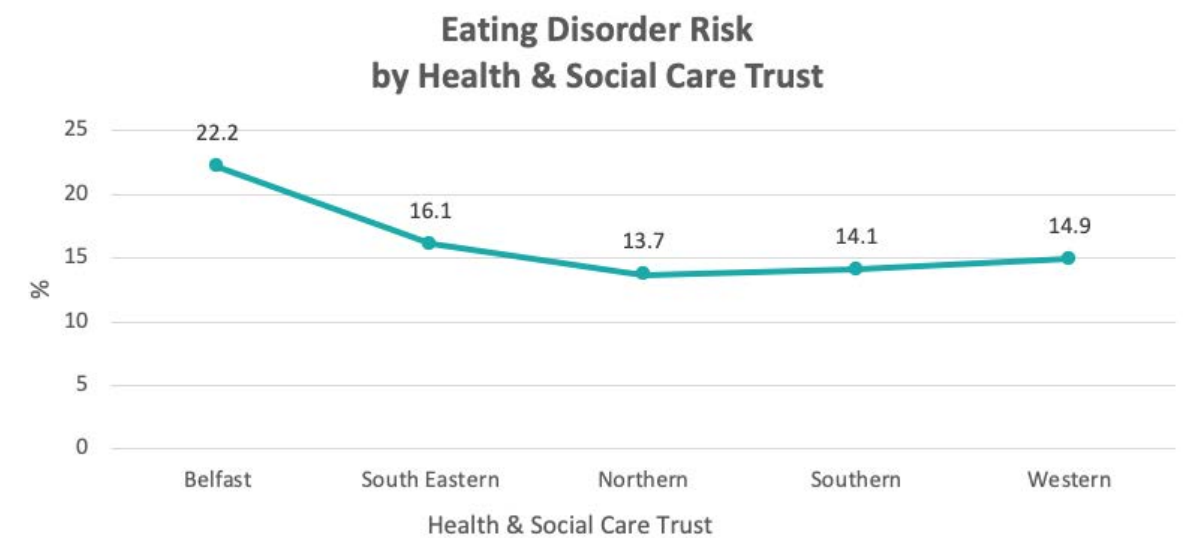
Figure 12.4 Autistic Spectrum Disorders by Health & Social Care Trust



$\chi^2 (4, N = 2565) = 10.33, p = .035$

12.1.4.3 Eating Disorders

Figure 12.6 Eating Disorders by Health & Social Care Trust



12.1.5 Self-Injury & Suicide Ideation

Table 12.7 Self-Injury & Suicidal Thoughts or Attempts by Health & Social Care Trust

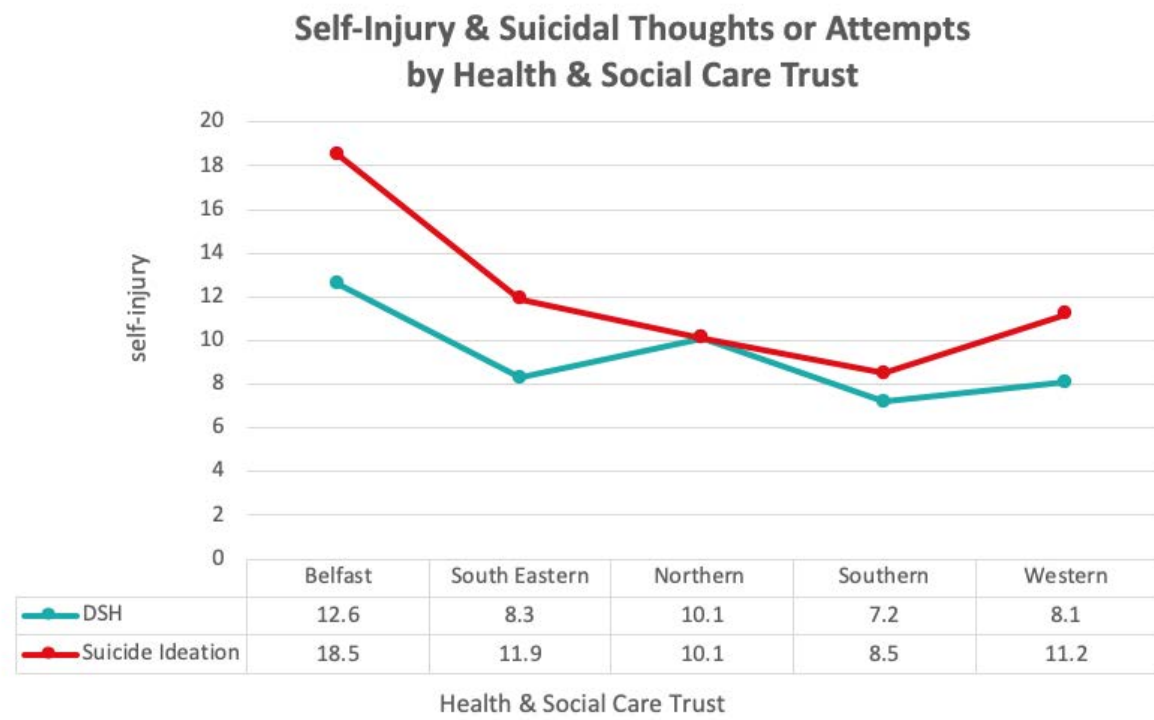
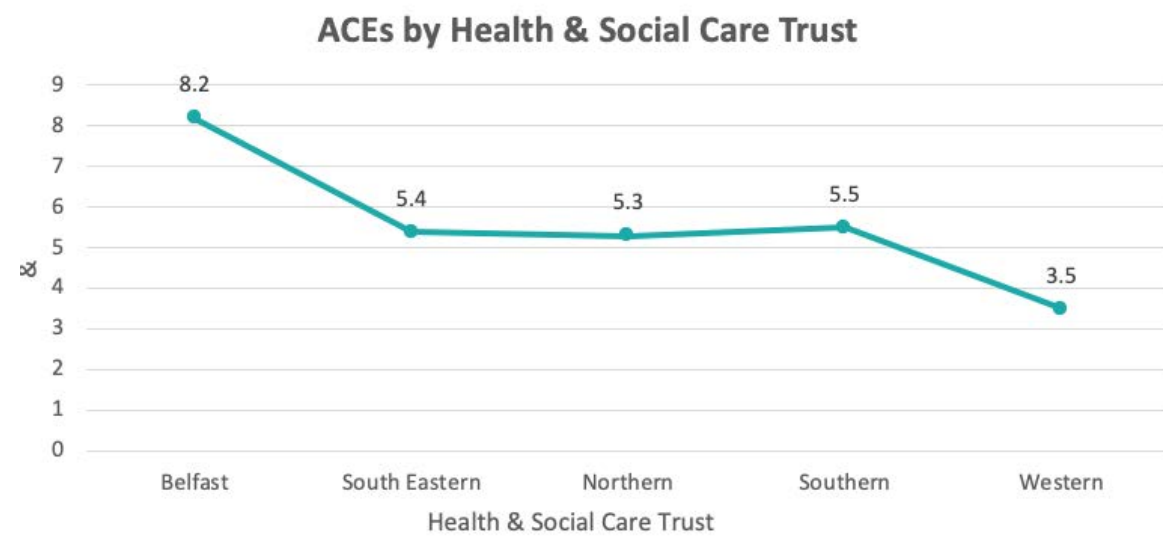
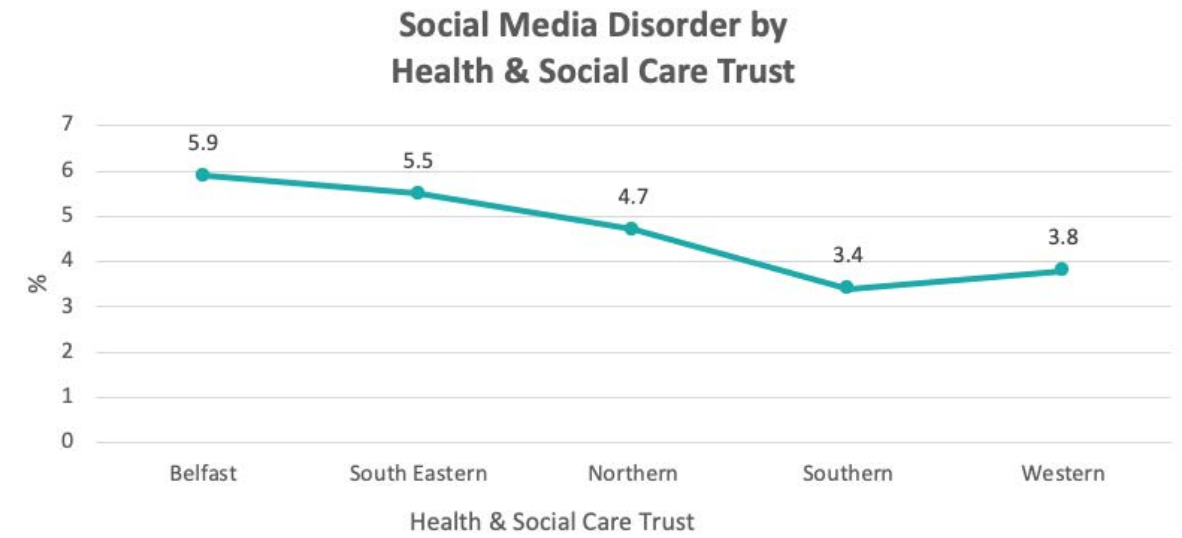


Figure 12.9 ACEs by Health & Social Care Trust



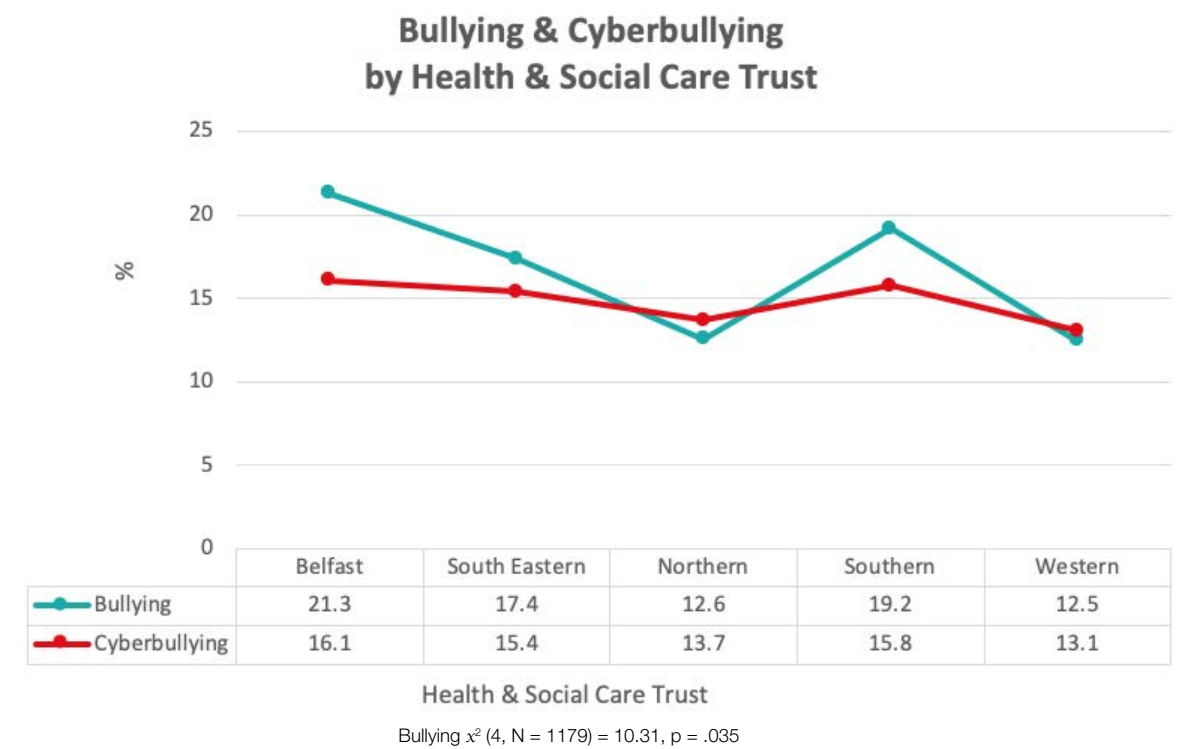
12.1.7 Social Media Disorder

Figure 12.10 Social Media Disorder by Health & Social Care Trust



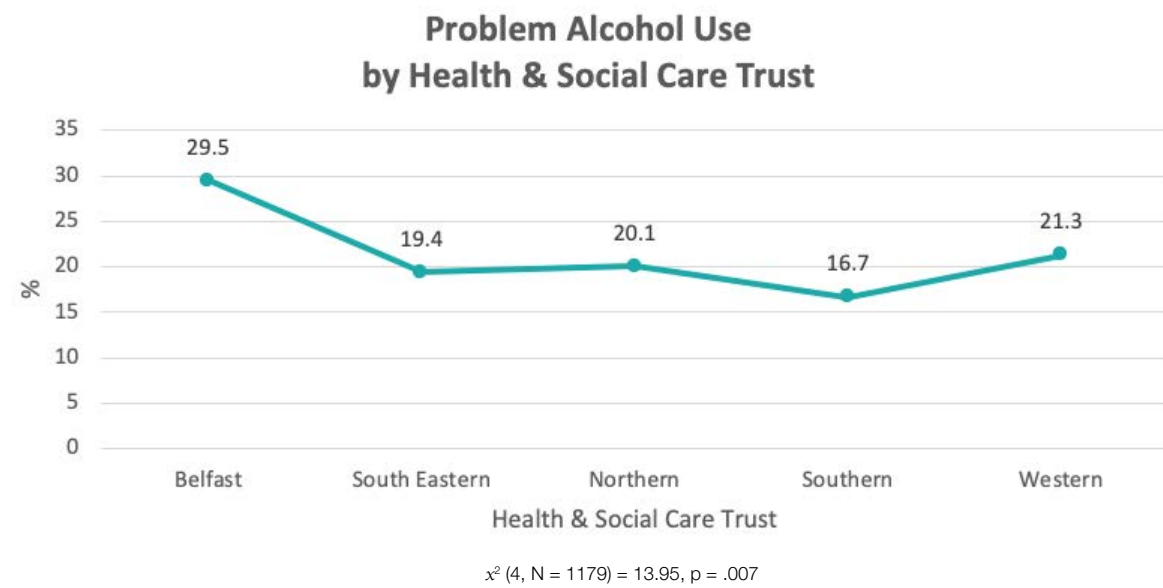
12.1.8 Bullying & Cyberbullying

Figure 12.10 Bullying & Cyberbullying by Health & Social Care Trust



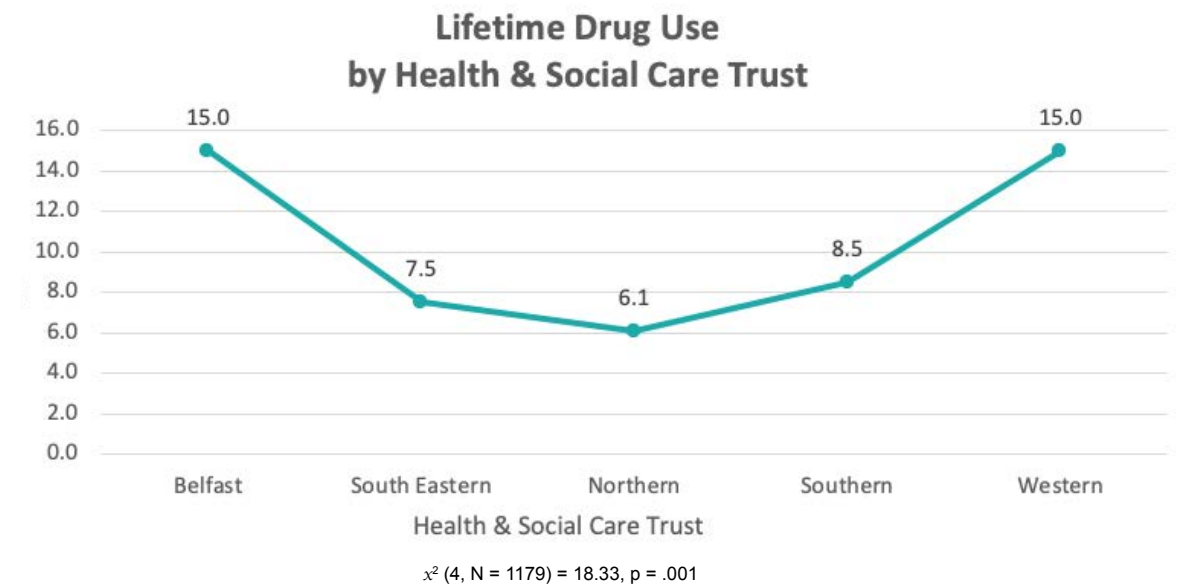
12.1.9 Alcohol Use

Figure 12.11 Problem Alcohol Use by Health & Social Care Trust



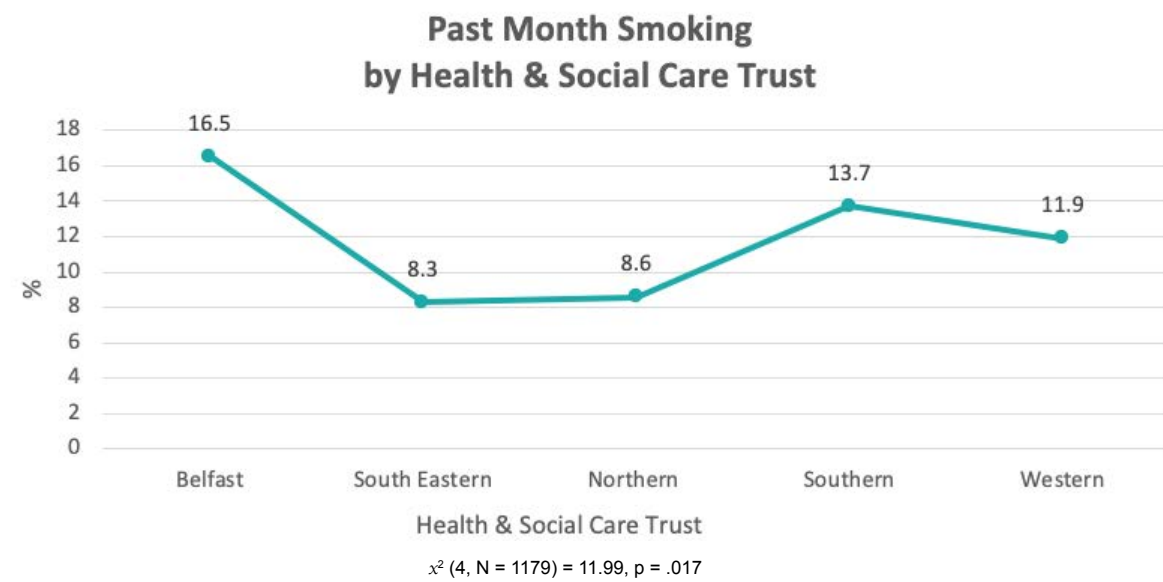
12.1.11 Lifetime Drug Use

Figure 12.13 Lifetime Drug Use by Health & Social Care Trust



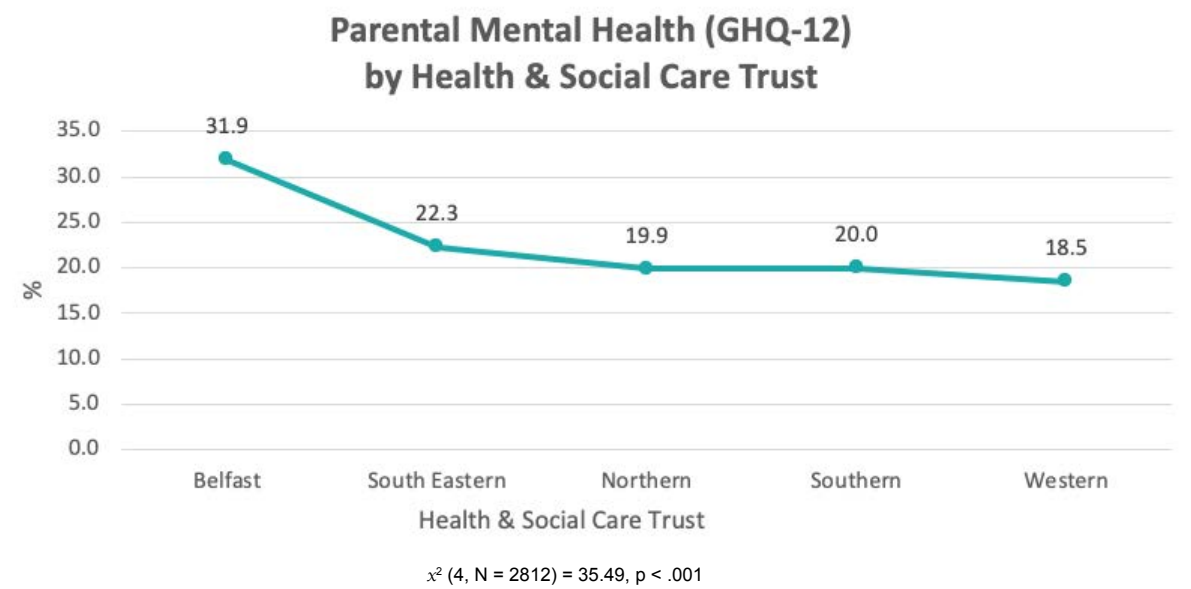
12.1.10 Smoking

Figure 12.12 Smoking by Health & Social Care Trust



12.1.6 Parental Mental Health

Figure 12.8 Parental Mental Health by Health & Social Care Trust



12.2 Technical Report

12.3 Questionnaire

12.4 Safeguarding protocol

All Perceptive Insight (PI) interview staff will have received safeguarding training and have Access NI clearance.

Consent

Researchers shall ensure that consent of a parent or responsible adult (acting in loco parentis) must be obtained before interviewing a child under 16; young people aged 16 and 17 and vulnerable adults may consent for themselves.

Researchers shall ensure that the adult is given sufficient information about the nature of the project to enable them to provide informed consent. Consent by the responsible adult provides the researcher with permission to invite the child/young person/vulnerable adult to participate in a project.

The child/young person/vulnerable adult must make their own choice regarding whether or not they want to take part in the research. Researchers will make every reasonable effort to verify that the young person/vulnerable adult understands the purpose of the research and implications of participation.

Wherever possible, the consent of the parent or responsible adult AND the child/vulnerable adult must be verifiable, for example in the form of a signature on a paper consent form. Where this is not possible, the researcher must make every reasonable effort to obtain a secure and verifiable form of consent.

Research content and subject matter

Special care is needed when interviewing about issues which could upset or worry the respondent, where issues risk creating tension e.g. between the child and their parents (or other relationships), where issues relate to potentially sensitive family situations or have a racial, religious or political angle.

While the researchers' role is not to provide advice or guidance, signposting information will be provided to all participants to resources or organisations who may be able to provide information, support or advice relating to any personal issue or behaviour.

Any disclosure of a confidential nature which may be potentially harmful or engender the risk of subsequent harm occurring to the child/young person/vulnerable adult must be dealt with in a sensitive and responsible manner. Where a respondent discloses that they have been harmed or that they are at risk of abuse, or the interviewer suspects this is the case, then the researcher should follow the Safeguarding Policy.

Safeguarding

We are committed to the protection of children/young people/vulnerable adults from harm at all times and recognise the potential role we have to play in supporting safeguarding processes within the local communities where our research takes place.

We also believe that the highest standards of research ethics and principles must be upheld at all times. As such, we will seek to protect the anonymity and confidentiality of all respondents throughout our research.

The only exception to this is where a child/young person/vulnerable adult discloses that they have been harmed or that they are at risk of harm, or the interviewer suspects this is the case. In such circumstances the researcher should inform PI's Safeguarding lead and follow the Perceptive Insight Safeguarding Policy.

The Director will take lead responsibility for dealing with safeguarding/child protection issues that arise during our research. This includes providing advice and support to other staff, liaising with other staff, and working with other agencies. In his absence the designated person will be the Managing Director.

If the researcher and/or Safeguarding Lead has reasonable cause to suspect that a child/young person/vulnerable adult they have come into contact with during the research, either directly or indirectly, is suffering or is likely to suffer significant harm, a referral must be made to the appropriate authority without delay and in

order that the child/young person/vulnerable adult can be protected if necessary.

If it is suspected that a child/young person/vulnerable adult's health or development is being impaired or there is a high risk of impairment (such as, malnourishment or a lack of socialisation) without intervention, the researcher and/or Safeguarding Lead must make a referral according to procedures set out by the relevant Local Health and Social Services Board.

If a professional intermediary has been involved in the commissioning, recruitment or set up of the research, the researcher should, while respecting the child/young person/vulnerable adult's confidentiality, seek to ascertain the level of any involved intermediary's awareness of the child/young person/vulnerable adult's needs and if in any doubt that the child/young person/vulnerable adult's needs are not being met the researcher and/or Safeguarding Lead must make a referral according to procedures set out by the relevant Local Health and Social Services Board.

Throughout any suspected safeguarding issue, the researcher must ensure that any disclosure of a confidential nature, which may be potentially harmful to the child/young person/vulnerable adult, must be dealt with in a sensitive and responsible manner.



Risk Protocol

There are a number of dimensions to the risk that interviewers may face when involved in close social interaction:

- risk of physical threat or abuse;
- risk of psychological trauma, as a result of actual or threatened violence or the nature of what is disclosed during the interaction;
- risk of being in a compromising situation, in which there might be accusations of improper behaviour;
- increased exposure to risks of everyday life and social interaction, such as road accidents and infectious illness;
- risk of causing psychological or physical harm to others.

The intention is not to be alarmist about potential dangers but to minimise anxieties or insecurities which might affect the quality of the research.

Interview precautions

The following actions should be considered to minimise risk in the interview situation:

- Plan your route in advance and always take a map.
- Park where you can't be obstructed from leaving or parked in.
- Try to avoid appearing out of place. Dress in a professional way. Equipment and valuable items should be kept out of sight.
- Where 'cold calling', assess the situation before beginning the interview and if in doubt re-arrange the interview for when a colleague can be present. Plan what to say on entry phones to maintain control while protecting confidentiality.
- Try to make sure you are seen entering an interviewee's home. Greet porters or caretakers, ask

in a local shop for directions or use other ways of ensuring your presence is noted. But take care not to compromise interviewee confidentiality.

- In multi-storey buildings, think about safety when choosing lifts or staircases.
- Carry a screech alarm or other device to attract attention in an emergency.
- Assess the layout and the quickest way out. If interviewing in a private dwelling, stay in the communal rooms.
- Do not sit with your back to the door, keep doorways clearly in sight and the exit doors easily reachable.
- Check pets are restrained or kept separate during the visit.
- Check for consent from parent/guardian and then from young person.
- Ensure that you are not left alone with a young person or child. If an adult leaves the room, meaning you are alone with a young person or child, ensure that the door remains open.
- Keep personal documents, mobile, personal possessions secure at all times.
- Let the interviewee know that you have a schedule and that others know where you are. Leave your mobile phone switched on.
- Always carry the identification badge. Respondents should be invited to check the authenticity.

Maintaining contact

It is essential to establish reliable lines of communication between the office base and the fieldwork site. The main elements of a fieldwork contact system are as follows:

- Details of the interviewer's itinerary and appointment times - including addresses should be left with a designated person (taking care about interviewee confidentiality)
- The researcher should notify base of any changes during fieldwork.
- Fieldworkers should carry mobile phones so that base can contact them.

Ideally, at the end of the day's work a telephone call should be placed informing base that the schedule of work has been completed. If the interviewer prefers to call in to a household member or friend, then this should be agreed in advance.

Debriefing and support after the event

If incidents have occurred, these should be recorded. Serious incidents should be discussed with the safeguarding officer. If violent incidents have occurred which may have some impact on the wellbeing of the interviewer, these should be reported to the safeguarding officer and to the local police force.

