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Scoping review protocol: the use of telemedicine in providing opioid agonist treatment and related psychosocial supports

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Scoping review protocol: the use of telemedicine in providing opioid agonist treatment and related psychosocial supports

Des Crowley^{1,2}, Robyn Homeniuk¹, Ide Delargy¹

1. Irish College of General Practitioners, Lincoln Place, Dublin 2
2. University College Dublin, Belfield, Dublin 4, Ireland

Corresponding author; address and email

Dr Des Crowley, University College Dublin, Belfield, Dublin 4, Ireland

doctordes@hotmail.com

Abstract

Introduction

The global opioid related disease burden is significant. Opioid agonist treatment (OAT) can be effective in, reducing illicit opioid use and fatal overdose and improving multiple health and social outcomes. Despite evidence for its effectiveness there are significant deficits in OAT globally. COVID-19 has required the rapid adaptation of remote models of healthcare. Telemedicine is not used routinely in OAT and little is known about the current levels of use and effectiveness. The objective of this review is to describe models of telemedicine, how they are implemented and their impacts.

Methods and analysis

This scoping review uses the review methodology described by Arksey and O'Malley and adapted by Levac and colleagues. The search strategy developed by the medical librarian at the Irish College of General Practitioners in conjunction with the research team will involve five databases (PubMed, EMBASE, the Cochrane Library, PsyhInfo and OpenGrey) and the hand-searching of reference lists.

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8 assessment, induction and monitoring) or related psychosocial support; be
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10 abstracts and full text articles considered for inclusion. Data will be extracted onto
11 an agreed template and will undergo a descriptive analysis of the contextual or
12 process-oriented data and simple quantitative analysis using descriptive statistics.
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22 Research ethics approval is not required for this scoping review. The results of this
23 scoping review will inform the development of a national remote model of OAT.
24 The results will be published in peer-reviewed journals and presented at relevant
25 conferences.
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31 **Strengths and limitations of this study**

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33 This is a novel systematic scoping review of remote models of providing OAT and
34 related psycho-social support.
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37 The search will be conducted quickly with results disseminated rapidly to inform
38 how remote care may be useful in managing COVID-related risks both in OAT and
39 other healthcare settings.
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42 The search strategy includes four electronic databases for peer-reviewed
43 literature one data base for grey literature sources.
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47 non-English speaking countries will be excluded.
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52 **Introduction**

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54 Health services globally are adapting to cope with COVID-19. Many services are
55 implementing dynamic and innovative changes to manage the challenges posed
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3 by COVID-19[1–3]. Much of these changes have focused on the delivery of remote
4 care by telephone and video.
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7 The global burden of disease due to opioid use is increasing. Worldwide, there are
8 an estimated 26.8 million people opioid dependant resulting in over 86,000
9 deaths annually[4]. People who use opioids (PWUO), in particular, people who
10 inject opioids (PWIO) have increased medical and social needs[4,5]. They are also
11 at increased risk of homelessness and imprisonment [5]. There is an increased
12 prevalence of HIV and hepatitis C infection among people who inject drugs
13 (PWID) further increasing their vulnerability[6].
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18 It is recognised that opioid agonist treatment (OAT) is a safe and effective
19 treatment that reduces illicit use, the transmission of blood borne viruses and
20 mortality and improves mental and physical wellbeing[7]. Engagement and
21 retention in treatment improve outcomes with disruption in OAT (particularly on
22 release from prison)is associated with increased risk of overdose[7,8]. There are
23 already many existing treatment deficits for PWUO including inadequate access to
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27 self isolation and cocooning[10].
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34 Maintaining continuity of care and protecting frontline staff has been identified
35 as priorities during this pandemic and drug treatment services will have similar
36 challenges to other healthcare settings[10]. Similar to other services reducing the
37 requirement for face-to-face care is recommended[3].
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41 To manage the challenges posed by COVID-19, Irish OAT services have widely
42 adapted to telemedicine to conduct risk triaging, assessment, reviews and for
43 providing counselling and psycho-social support. Patients have responded well to
44 these measures and like other models of remote care have reported satisfaction
45 with virtual consultations due to reduced waiting times and travel costs [11].
46 While telephone consultations are adequate for most patients video linking may
47 be more appropriate for sicker patients and for those with greater psychosocial
48 needs[2]. At the time of writing the Irish health service has yet to agree a suitable
49 electronic platform and do not recommend the use of mainstream video
50 conferencing services for clinical purposes. Historically small numbers of OAT
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3 services have successfully used telemedicine for hepatitis c treatment and
4 providing psychological and other supports[11–13]. Mental health services have
5 also demonstrated success with remote care and of course general practice was
6 one of the first medical specialities to adapt to its use to manage COVID-19[2,14].
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10 Expanding and adapting OAT services is critical to reduce the impact on COVID-19
11 and remote care models provide an opportunity. These models may also have
12 added benefits of OAT delivery into the future increasing access and improving
13 retention in care[11]. The aim of this scoping review is to describe how
14 widespread these models are, how they are implemented and their impacts, both
15 under normal and crises circumstances. This review will also indentify gaps in the
16 literature and can inform how OAT services can adapt to manage the immediate
17 and emerging risks of COVID and improve OAT delivery internationally[15].
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23 **Methods and analysis**

24 **Protocol development**

25 This study will use the five-stage framework for scoping reviews as originally
26 outlined by Arksey and O'Malley and updated by Levac and Colleagues [15,16].
27 The five stages in this framework are: i) Identifying the research question, ii)
28 Identifying relevant studies, iii) study selection, iv)Charting the data, and v)
29 Collating, summarising and reporting.
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36 **Patient and Public Involvement**

37 It was not appropriate or possible to involve patients or the public in the design,
38 or conduct, or reporting, or dissemination plans of our research.
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42 **Stage 1: Identifying the research question**

43 Research questions in scoping reviews are naturally broad as the point of these
44 types of reviews is to summarise a range of evidence. Through consultation with
45 the research team and the Management of Addiction in Primary Care (MAPC)
46 team at the Irish College of General Practitioners (ICGP) the following research
47 questions were identified: (1) How have virtual consultations been used to
48 provide OAT and related psychosocial supports? (2) How effective are these
49 approaches? These questions might be refined or expanded on as the process of
50 conducting a scoping review is often iterative and reflexive. Our study population
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3 is any person on OAT and remote care will include phone, video and email
4 consultations and prescription management.
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7 **Stage 2: Identifying relevant studies**

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9 In collaboration with the ICGP librarian and the research team, a comprehensive
10 search strategy was developed. The researchers have selected a range of
11 databases to ensure a variety of literature that encompasses views from general
12 practice, psychiatry and psychology, health service delivery, and other medical
13 and social sciences.
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17 The relevant literature will include open-access peer-reviewed publications and
18 grey literature available from the following databases: PubMed, EMBASE, the
19 Cochrane Library, PsyhInfo, and OpenGrey. Researchers will also hand search the
20 references of included studies. Our search will include literature published in
21 English from 2010 until the present. The preliminary search completed by the
22 librarian and researcher RH determined these criteria would be adequate, as
23 telemedicine is a new tool that has not yet been popularised everywhere. All
24 searches will be completed in collaboration between the research team and
25 librarians at the ICGP.
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29 The first step consisted of an initial search of two data bases (PubMed and
30 EMBASE) using standardised search terms adapted to their requirements. The
31 result of the PubMed search is included in appendix 1 (supplementary material).
32 Based on these searches, search terms will be redefined for a more
33 comprehensive search of all included data bases. The final step involves the hand
34 searching of literature that meets the inclusion criteria.
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37 **Stage 3: Selection Criteria**

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39 The screening process will consist of two stages: a title and abstract review and
40 full-text screening. Two reviewers will independently screen studies by title and
41 abstract to determine suitability for inclusion. Studies not deemed eligible for
42 inclusion (where both researchers agree) will be removed. All other studies will
43 move to stage two where the full texts will be reviewed. Both researchers will
44 independently review the full study text and select studies to be included in the
45 final review. The full team will review those that are undetermined and will make
46 a final decision on their inclusion/exclusion.
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Stage 4: Charting the Data

A data collection instrument will be developed by the research team to extract study characteristics. Study characteristics to be extracted will include; title, author, publishing body, publication date, peer-reviewed or grey literature, country/countries involved, keywords used by studies, aims of the study, methodology, study population, type of intervention used, type of care setting, health professionals involved in the treatment, satisfaction with technologies used, key findings and recommendations from the studies. After a preliminary charting of the first few papers, the principal investigator (DC) and research officer (RH) will review the results and make any changes to the characteristics being collected as required.

The data we extract from relevant studies will be charted and sorted into key themes using a qualitative thematic analysis approach. Quantitative data such as study population size will also be recorded alongside the qualitative information. We will pay particular attention to the types of tele-medical interventions used – such as telephone, email or video consultation – and how effective both healthcare professionals and patients found them. After identifying themes from the literature, evidence will be synthesised using summary tables with key themes as headings as is common with scoping reviews.

Stage 5: Collating, summarising and reporting the results

To increase the rigour of scoping review methodology, Levac and colleagues have suggested that this section is divided into the following three separate steps: analysing the data, reporting results, and applying meaning to the results[16]. Our analysis will include both a descriptive numeric summary and a thematic analysis. This shall include characteristics of studies included, overall numbers of studies, study populations, and where studies occurred. Qualitative analysis techniques will be used to complete the thematic analysis of this scoping review. Additionally, we will identify and report gaps in the available literature. Finally, we will consider the implications of the review's findings within a broader research, practice and policy context.

Discussion and Dissemination

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A scoping review is a secondary analysis of published literature and does not require ethics approval. This work will constitute the first part of developing a national model of remote OAT provision in Ireland so as to remove treatment barriers, particular in regional towns and rural areas and also to inform how best to manage COVID-19 –related risk for patients and healthcare providers. The results will be disseminated through local and national addiction expert groups, peer-reviewed publication and conference presentations. The next steps are dissemination of results – ensuring this lines up with the purpose of the study – and discussing the wider context and implications for further research, policy and practice.

Footnotes

Contributors; Design of protocol: DC, RH, Draft of manuscript: DC, RH Final approval of manuscript: DC, RH, ID

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Competing interests

None declared.

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Search	Number
Opioid substitution Treatment	3840
Methadone	16,854
Buprenorphine	7665
Naltrexone	10021
Naloxone	33305
Psychosocial supports systems	2678
"opioid substitution treatment" or "methadone" or "buprenorphine" or "naltrexone"	31213
telemedicine	33456
Psychosocial Support Systems and telemedicine	31
naloxone and telemedicine	7
methadone and telemedicine	18
Buprenorphine and telemedicine	33
Naltrexone and telemedicine	5
"opioid substitution treatment" or "methadone" or "buprenorphine" or "naltrexone" or "naloxone" or "Psychosocial supports systems" and telemedicine	31

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Secondary Subject Heading:	Evidence based practice, Public health
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44 these measures and like other models of remote care have reported satisfaction
45 with virtual consultations due to reduced waiting times and travel costs [11].
46 While telephone consultations are adequate for most patients video linking may
47 be more appropriate for sicker patients and for those with greater psychosocial
48 needs[2]. At the time of writing the Irish health service has yet to agree a suitable
49 electronic platform and do not recommend the use of mainstream video
50 conferencing services for clinical purposes. Historically small numbers of OAT
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4 services have successfully used telemedicine for hepatitis c treatment and
5 providing psychological and other supports[11–13]. Mental health services have
6 also demonstrated success with remote care and of course general practice was
7 one of the first medical specialities to adapt to its use to manage COVID-19[2,14].
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10 Expanding and adapting OAT services is critical to reduce the impact on COVID-19
11 and remote care models provide an opportunity. These models may also have
12 added benefits of OAT delivery into the future increasing access and improving
13 retention in care[11]. The objectives of this scoping review are to; describe these
14 models (including their implementation, prevalence and utility in overcoming
15 challenges to OAT delivery), report on their efficacy and identify gaps in the
16 literature .When completed the review will inform how OAT services can adapt to
17 manage the immediate and emerging risks of COVID-19 and improve OAT delivery
18 internationally[15].
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24 **Methods and analysis**

25 **Protocol development**

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27 This study will use the five-stage framework for scoping reviews as originally
28 outlined by Arksey and O'Malley and updated by Levac and Colleagues [15,16].
29 The five stages in this framework are: i) Identifying the research question, ii)
30 Identifying relevant studies, iii) study selection, iv) Charting the data, and v)
31 Collating, summarising and reporting. The review will be reported according to
32 Preferred Reporting Items for Systematic reviews and Meta-Analyses extension
33 for Scoping Reviews (PRISMA-ScR)[17].
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40 **Patient and Public Involvement**

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42 It was not possible to involve patients or the public in the design or in the
43 completion of the view. Findings from the scoping review will be disseminated to
44 national and international experts working in the area and to patients and the
45 public through reports in relevant publications.
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49 **Stage 1: Identifying the research question**

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51 Research questions in scoping reviews are naturally broad as the point of these
52 types of reviews is to summarise a range of evidence. Through consultation with
53 the research team and the Management of Addiction in Primary Care (MAPC)
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team at the Irish College of General Practitioners (ICGP) the following research questions were identified: (1) How have virtual consultations been used to provide OAT and related psychosocial supports? (2) How effective are these approaches? These questions might be refined or expanded on as the process of conducting a scoping review is often iterative and reflexive.

Stage 2: Identifying relevant studies

In collaboration with the ICGP librarian and the research team, a comprehensive search strategy was developed. The researchers have selected a range of databases to ensure a variety of literature that encompasses views from general practice, psychiatry and psychology, health service delivery, and other medical and social sciences.

The relevant literature will include peer-reviewed publications and grey literature available from the following databases: PubMed, EMBASE, the Cochrane Library, PsychInfo, and OpenGrey. Researchers will also hand search the references of included studies. To be eligible for inclusion, studies will have to report on our study population which is any person receiving or providing remote OAT or related psychosocial support. Remote care will include phone, video and email consultations and prescription management.

Our search will include literature published in English from 2010 until the present. Due to technology improvements over the last decade studies published prior to 2010 will be excluded. The preliminary search completed by the librarian and researcher RH determined these criteria would be adequate, as telemedicine is a new tool that has not yet been popularised everywhere. All searches will be completed in collaboration between the research team and librarians at the ICGP.

The first step consisted of an initial search of two data bases (PubMed and EMBASE) using standardised search terms adapted to their requirements. The result of the PubMed search is included in appendix 1 (supplementary material). Based on these searches, search terms will be redefined for a more comprehensive search of all included data bases. The final step involves the hand searching of literature that meets the inclusion criteria.

Stage 3: Selection Criteria

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The screening process will consist of two stages: a title and abstract review and full-text screening. Two reviewers will independently screen studies by title and abstract to determine suitability for inclusion. To be eligible for inclusion studies will have to report on models of telemedicine used to deliver OAT and/or related psychosocial supports and be published in English in 2010 or later. OAT will include methadone and buprenorphine. Studies not deemed eligible for inclusion (where both researchers agree) will be removed. All other studies will move to stage two where the full texts will be reviewed. Both researchers will independently review the full study text and select studies to be included in the final review. The full team will review those that are undetermined and will make a final decision on their inclusion/exclusion.

Stage 4: Charting the Data

A data collection instrument will be developed by the research team to extract study characteristics. Study characteristics to be extracted will include; title, author, publishing body, publication date, peer-reviewed or grey literature, country/countries involved, keywords used by studies, aims of the study, methodology, study population, type of intervention used, type of care setting, health professionals involved in the treatment, satisfaction with technologies used, key findings and recommendations from the studies. After a preliminary charting of the first few papers, the principal investigator (DC) and research officer (RH) will review the results and make any changes to the characteristics being collected as required.

The data we extract from relevant studies will be charted and sorted into key themes using a qualitative thematic analysis approach. Quantitative data such as study population size will also be recorded alongside the qualitative information. We will pay particular attention to the types of telemedical interventions used – such as telephone, email or video consultation – and how effective both healthcare professionals and patients found them. After identifying themes from the literature, evidence will be synthesised using summary tables with key themes as headings as is common with scoping reviews.

Stage 5: Collating, summarising and reporting the results

To increase the rigour of scoping review methodology, Levac and colleagues have suggested that this section is divided into the following three separate steps: analysing the data, reporting results, and applying meaning to the results[16]. Our analysis will include both a descriptive numeric summary and a thematic analysis. This shall include characteristics of studies included, overall numbers of studies, study populations, and where studies occurred. Qualitative analysis techniques will be used to complete the thematic analysis of this scoping review. Additionally, we will identify and report gaps in the available literature. Finally, we will consider the implications of the review's findings within a broader research, practice and policy context.

Ethics and Dissemination

A scoping review is a secondary analysis of published literature and does not require ethics approval. This work will constitute the first part of developing a national model of remote OAT provision in Ireland so as to remove treatment barriers, particular in regional towns and rural areas and also to inform how best to manage COVID-19 –related risk for patients and healthcare providers. The results will be disseminated through local and national addiction expert groups, peer-reviewed publication and conference presentations.

Footnotes

Contributors; Design of protocol: DC, RH, Draft of manuscript: DC, RH Final approval of manuscript: DC, RH, ID

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Competing interests

None declared.

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Search	Number
Opioid substitution Treatment	3840
Methadone	16,854
Buprenorphine	7665
Naltrexone	10021
Naloxone	33305
Psychosocial supports systems	2678
"opioid substitution treatment" or "methadone" or "buprenorphine" or "naltrexone"	31213
telemedicine	33456
Psychosocial Support Systems and telemedicine	31
naloxone and telemedicine	7
methadone and telemedicine	18
Buprenorphine and telemedicine	33
Naltrexone and telemedicine	5
"opioid substitution treatment" or "methadone" or "buprenorphine" or "naltrexone" or "naloxone" or "Psychosocial supports systems" and telemedicine	31

Pubmed search -Telemedicine and OAT – May 15th 2020

BMJ Open

Scoping review protocol: the use of telemedicine in providing opioid agonist treatment and related psychosocial supports

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Primary Subject Heading:	Addiction
Secondary Subject Heading:	Evidence based practice, Public health
Keywords:	Telemedicine < BIOTECHNOLOGY & BIOINFORMATICS, PUBLIC HEALTH, Substance misuse < PSYCHIATRY

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Scoping review protocol: the use of telemedicine in providing opioid agonist treatment and related psychosocial supports

Des Crowley^{1,2}, Robyn Homeniuk¹, Ide Delargy¹

1. Irish College of General Practitioners, Lincoln Place, Dublin 2
2. University College Dublin, Belfield, Dublin 4, Ireland

Corresponding author; address and email

Dr Des Crowley, University College Dublin, Belfield, Dublin 4, Ireland
doctordes@hotmail.com

Abstract

Introduction

The global opioid-related disease burden is significant. Opioid agonist treatment (OAT) can be effective in reducing illicit opioid use and fatal overdose and improving multiple health and social outcomes. Despite evidence for its effectiveness, there are significant deficits in OAT globally. COVID-19 has required rapid adaptation of remote models of healthcare. Telemedicine is not used routinely in OAT, and little is known about the current levels of use and effectiveness. The objective of this review is to describe models of telemedicine and their efficacy.

Methods and analysis

This scoping review uses the review methodology described by Arksey and O'Malley and adapted by Levac and colleagues. The search strategy developed by the medical librarian at the Irish College of General Practitioners in conjunction with the research team will involve five databases (PubMed, EMBASE, the Cochrane Library, PsyhInfo and OpenGrey) and the hand-searching of reference lists.

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4 A limited initial search of two databases will be completed to refine search terms,
5 followed by a second comprehensive search using newly refined search terms of
6 all databases, and finally hand-searching references of included studies. To be
7 included studies must report on remote ways of providing OAT (including
8 assessment, induction and monitoring) or related psychosocial support; be
9 published in English after 2010. Two researchers will independently screen titles,
10 abstracts and full text articles considered for inclusion. Data will be extracted onto
11 an agreed template and will undergo a descriptive analysis of the contextual or
12 process-oriented data and simple quantitative analysis using descriptive statistics.
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20 **Ethics and dissemination**

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22 Research ethics approval is not required for this scoping review. The results of this
23 scoping review will inform the development of a national remote model of OAT.
24 The results will be published in peer-reviewed journals and presented at relevant
25 conferences.
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31 **Strengths and limitations of this study**

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33 This is the first scoping review of remote models of providing OAT and related
34 psychosocial support.
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37 The search will be conducted quickly with results disseminated rapidly to inform
38 how remote care may be useful in managing COVID-19 related risks both in OAT
39 and other healthcare settings.
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42 The search strategy includes four electronic databases for peer-reviewed
43 literature and one data base for grey literature sources.
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46 Due to date and language restrictions, historical models and those developed in
47 non-English speaking countries will be excluded.
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52 **Introduction**

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54 Health services globally are adapting to cope with COVID-19. Many services are
55 implementing dynamic and innovative changes to manage the challenges posed
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3 by COVID-19[1–3]. Much of these changes have focused on the delivery of remote
4 care by telephone and video.
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7 The global opioid-related disease burden is an increasing public health concern.
8 Worldwide, there are an estimated 26.8 million people opioid dependant
9 resulting in over 86,000 deaths annually[4]. People who use opioids (PWUO), in
10 particular, people who inject opioids (PWIO) have increased medical and social
11 needs[4,5]. They experience increased levels of homelessness and imprisonment
12 [5]. There is also an increased prevalence of HIV and hepatitis C infection among
13 people who inject drugs (PWID) causing increased rates of morbidity and
14 mortality in this group compared to the general population[6].
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20 Opioid agonist treatment (OAT) can safely and effectively reduce; illicit drug use,
21 the transmission of HIV and hepatitis C infection and mortality. Furthermore it
22 improves mental and physical wellbeing[7]. Engagement and retention in
23 treatment improves outcomes and disruption is associated with increased risk of
24 overdose, particularly post prison release [7,8]. There are many existing
25 treatment deficits for PWUO including inadequate access to OAT, needle and
26 syringe programmes and overdose prevention and naloxone programmes [9].
27 These deficits are even more concerning during the COVID-19 pandemic and
28 create challenges in relation to compliance with social distancing, self-isolation
29 and cocooning[10].
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36 Maintaining continuity of care and protecting frontline staff has been identified as
37 priorities during this pandemic and drug treatment services will have similar
38 challenges to other healthcare settings[10]. Similar to other services reducing the
39 requirement for face-to-face care is recommended[3].
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43 To manage the challenges posed by COVID-19, Irish OAT services have widely
44 adapted to telemedicine to conduct risk triaging, assessment, reviews and for
45 providing counselling and psychosocial support. Patients have responded well to
46 these measures and like other models of remote care have reported satisfaction
47 with virtual consultations due to reduced waiting times and travel costs [11].
48 While telephone consultations are suitable for most patients video linkage may be
49 required for those with greater health and psychosocial needs[2]. At the time of
50 writing the Irish health service has yet to agree a suitable electronic platform and
51 do not recommend the use of mainstream video conferencing services for clinical
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purposes. Historically small numbers of OAT services have successfully used telemedicine for hepatitis c treatment and providing psychological and other supports[11–13]. Mental health services have also reported success with telemedicine, and general practice was one of the first medical specialties to adapt to its use in the management of COVID-19[2,14].

Expanding and adapting OAT services is critical to minimise the impact of COVID-19 and remote care models provide opportunities. Telemedicine may also have the added benefits of increasing access and improving retention in OAT into the future [11]. The objectives of this scoping review are to; describe these models (including their implementation, prevalence and utility in overcoming challenges to OAT delivery), report on their efficacy and identify gaps in the literature. When completed the review will inform how OAT services can adapt to manage the immediate and emerging risks of COVID-19 and improve OAT delivery internationally[15].

Methods and analysis

Protocol development

This study will use the five-stage framework for scoping reviews as originally outlined by Arksey and O'Malley and updated by Levac and Colleagues [15,16]. The five stages in this framework are: i) Identifying the research question, ii) Identifying relevant studies, iii) study selection, iv) Charting the data, and v) Collating, summarising and reporting. The review will be reported according to Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR)[17].

Patient and Public Involvement

It was not possible to involve patients or the public in the design or in the completion of the view. Findings from the scoping review will be disseminated to national and international experts working in the area and to patients and the public through reports in relevant publications.

Stage 1: Identifying the research question

Research questions in scoping reviews are naturally broad as the point of these types of reviews is to summarise a range of evidence. Through consultation with

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3 the research team and the Management of Addiction in Primary Care (MAPC)
4 team at the Irish College of General Practitioners (ICGP) the following research
5 questions were identified: (1) How have virtual consultations been used to
6 provide OAT and related psychosocial supports? (2) How effective are these
7 approaches? These questions might be refined or expanded on as the process of
8 conducting a scoping review is often iterative and reflexive.
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13 **Stage 2: Identifying relevant studies**

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15 In collaboration with the ICGP librarian and the research team, a comprehensive
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17 databases to ensure a variety of literature that encompasses views from general
18 practice, psychiatry and psychology, health service delivery, and other medical
19 and social sciences.
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24 The relevant literature will include peer-reviewed publications and grey literature
25 available from the following databases: PubMed, EMBASE, the Cochrane Library,
26 PsychInfo, and OpenGrey. Researchers will also hand search the references of
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35 Our search will include literature published in English from 2010 until the present.
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38 researcher RH determined these criteria would be adequate, as telemedicine is a
39 new tool that has not yet been popularised everywhere. All searches will be
40 completed in collaboration between the research team and librarians at the ICGP.
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45 The first step consisted of an initial search of two data bases (PubMed and
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53 **Stage 3: Selection Criteria**

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The screening process will consist of two stages: a title and abstract review and full-text screening. Two reviewers will independently screen studies by title and abstract to determine suitability for inclusion. To be eligible for inclusion studies will have to report on models of telemedicine used to deliver OAT and/or related psychosocial supports and be published in English in 2010 or later. OAT will include methadone and buprenorphine. Studies not deemed eligible for inclusion (where both researchers agree) will be removed. All other studies will move to stage two where the full texts will be reviewed. Both researchers will independently review the full study text and select studies to be included in the final review. The full team will review those that are undetermined and will make a final decision on their inclusion/exclusion.

Stage 4: Charting the Data

A data collection instrument will be developed by the research team to extract study characteristics. Study characteristics to be extracted will include; title, author, publishing body, publication date, peer-reviewed or grey literature, country/countries involved, keywords used by studies, aims of the study, methodology, study population, type of intervention used, type of care setting, health professionals involved in the treatment, satisfaction with technologies used, key findings and recommendations from the studies. After a preliminary charting of the first few papers, the principal investigator (DC) and research officer (RH) will review the results and make any changes to the characteristics being collected as required.

The data we extract from relevant studies will be charted and sorted into key themes using a qualitative thematic analysis approach. Quantitative data such as study population size will also be recorded alongside the qualitative information. We will pay particular attention to the types of telemedical interventions used – such as telephone, email or video consultation – and how effective both healthcare professionals and patients found them. After identifying themes from the literature, evidence will be synthesised using summary tables with key themes as headings as is common with scoping reviews.

Stage 5: Collating, summarising and reporting the results

To increase the rigour of scoping review methodology, Levac and colleagues have suggested that this section is divided into the following three separate steps: analysing the data, reporting results, and applying meaning to the results[16]. Our analysis will include both a descriptive numeric summary and a thematic analysis. This shall include characteristics of studies included, overall numbers of studies, study populations, and where studies occurred. Qualitative analysis techniques will be used to complete the thematic analysis of this scoping review. Additionally, we will identify and report gaps in the available literature. Finally, we will consider the implications of the review's findings within a broader research, practice and policy context.

Ethics and Dissemination

A scoping review is a secondary analysis of published literature and does not require ethics approval. This work will constitute the first part of developing a national model of remote OAT provision in Ireland so as to remove treatment barriers, particular in regional towns and rural areas and also to inform how best to manage COVID-19 –related risk for patients and healthcare providers. The results will be disseminated through local and national addiction expert groups, peer-reviewed publication and conference presentations.

Footnotes

Contributors; Design of protocol: DC, RH, Draft of manuscript: DC, RH Final approval of manuscript: DC, RH, ID

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Competing interests

None declared.

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