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An Analysis of Nurse-Led COVID-19 Interventions among Homeless Populations in Dublin, Ireland

Executive Summary

Dublin Simon Community
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Opening doors for homeless people
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Executive Summary

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Dr Margaret Fitzgerald, Public Health Lead for Social Inclusion/ Vulnerable Groups, National Social Inclusion Office, HSE.

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List of Terms and Abbreviations

In this report, a variety of terms are used to denote people who use homeless services. These reflect the terms used by services and service users. Terms include; *Service user, Client* and *Patient.*

The term *Nurse* is used to denote a range of nursing specialisms including M*idwifery.*

ARV	Antiretroviral	MDT	Multidisciplinary Team
BBV	Blood borne Virus	NPHET	National Public Health Emergency Team
CAH	COVID-19 Community Assessment Hub	NMBI	Nursing and Midwifery Board of Ireland
CHO	Community Healthcare Organisation	NSIO	National Social Inclusion Office
COVID-19	Coronavirus Disease	ONMSD	Office of the Nursing and Midwifery Services Director
DOH	Department of Health	OST	Opiate Substitution Treatment
DRHE	Dublin Region Homeless Executive	PCR	Polymerase Chain Reaction
DSC	Dublin Simon Community	PMVT	Peter McVerry Trust
DCU	Dublin City University	PPE	Personal Protective Equipment
EAP	Employment Assistance Programme	PPI	Public & Patient Involvement
EMR	Electronic Medical Record systems	RCQPS	Research Collaborative in Quality and Patient Safety
HEI	Higher Education Institution	SJH	St James' Hospital
HIV	Human Immunodeficiency Virus	SNPCH	School of Nursing, Psychotherapy and Community Health

HSE	Health Service Executive	STI	Sexually Transmitted Infection
IH	Inclusion Health	TB	Tuberculosis
IOM	Institute of Medicine	WHO	World Health Organisation
IPC	Infection Protection & Control		

Executive Summary

Introduction

COVID-19 presents healthcare challenges worldwide, including the imperative to protect people who have health related vulnerabilities and to limit contagion and further chronic illness among these populations. People who are homeless, particularly those with addictions and/ or sleeping rough, experience a range of health issues which are often undiagnosed or untreated because of poor healthcare access or uptake. Contagion risks arise from poor access/ adherence to infection control measures among this often geographically mobile population. Refugees, asylum seekers and homeless migrants are also at greater risk of COVID-19 transmission. Congregated or unstable accommodation (e.g. hostels, asylum centres) inhibits social distancing and self-isolation. There is a significant knowledge gap concerning the multifactorial disease trajectories and care needs among homeless cohorts in pandemic contexts.

For those who are socially excluded, nurses are often the most accessible members of the healthcare team; planning, delivering and evaluating health promotion/ healthcare among hard to reach populations. Nurses constitute approximately 50% of the global healthcare workforce, delivering approximately 80% of routine prevention and treatment services and a large proportion of direct, pandemic-related patient care. COVID-19 demands evidence-based and rapid responses, yet knowledge concerning particular needs, effective infection control and treatment approaches among homeless people in pandemic contexts is still at an early stage of development. Nurses, who are at the forefront of pandemic preparation and care interventions are well placed to observe and analyse structures, processes and outcomes of healthcare delivery and to identify challenges and improved ways of working. This research, using case study methodology and healthcare quality evaluation frameworks, focused on the COVID-19 related practice of nurses and midwives in six Inclusion Health services for homeless people. Through capturing and sharing the characteristics of nurse-led COVID-19 interventions in Ireland and analysing their strengths and limitations, the research identifies what is most efficacious and recommends best practice in systematic healthcare planning and provision in pandemic intervention among homeless patient cohorts.

Research Aim

The overall aim of the research was to collate and evaluate nurse-led COVID-19 interventions among homeless populations and to communicate findings and recommendations to practitioners and policy makers nationally in order to advance knowledge and practice.

Research Objectives

1. To collect practice case studies across six Irish Inclusion Health services and using healthcare quality evaluation frameworks, analyse the strengths/ limitations of nurse-led interventions in COVID-19 prevention/ intervention among homeless cohorts
2. To undertake cross-case analysis to determine the efficacy/ recommendations from these interventions across all cases, using findings to guide practice and policy development

Research Team

This research was carried out by a collaborative research team comprising academic researchers from the School of Nursing, Psychotherapy and Community Health Dublin City University, a peer researcher and nurse practitioners who are leading Inclusion Health initiatives in the context of the COVID-19 pandemic in Ireland.

Lead Investigators:
Dr Briege Casey, Associate Professor, School of Nursing, Psychotherapy and Community Health (SNPCH), Dublin City University (DCU) and Dr Fiona O Reilly, Chief Executive Officer, Safetynet Primary Care.

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This research was funded by The Research Collaborative in Quality and Patient Safety (RCQPS) which is a collaborative initiative between the Health Research Board, the Health Service Executive, National Quality Improvement Team and the Royal College of Physicians of Ireland.

Research Methodology

Mixed methodology was used in this research, involving the development and analysis of six case studies of nurse-led COVID-19 initiatives among homeless populations. Case studies are in-depth descriptions of projects and practice initiatives that advance knowledge about healthcare approaches in specific contexts. Case study research facilitates study of all aspects of a case and enables a deeper understanding of a complex issue. The case studies are as follows:

Case Study 1:

The use of remote interventions for the assessment and monitoring of homeless service users in cocooning/isolation during the COVID-19 pandemic. - HSE Homeless Healthlink, CHO Area 7.

Case Study 2:

COVID-19 initiatives in Inclusion Health Liaison Nursing- St James's Hospital, Dublin.

Case Study 3:

The development and implementation of an emergency COVID-19 nurse-led response in a primary care service - Safetynet Primary Care, Dublin.

Case study 4:

The work of a nurse-led Step-Up Step-Down unit for homeless people recovering or at high risk from COVID-19 - Dublin Simon Community

Case Study 5:

The provision of isolation and shielding facilities to the homeless population in a city centre isolation facility - Peter McVerry Trust, Dublin.

Case study 6:

Nurse/midwife-led responses to the evolving COVID-19 pandemic at the HSE Refugee Health Centre located at The National Reception Centre, Balseskin, Dublin.

Given that the main aim of the research was to evaluate COVID-19 nurse-led interventions among homeless people, the case study framework used to collect and analyse the data incorporated two established models of healthcare quality evaluation.

- The Donabedian model (Donabedian 2006), which enabled data collection/ examination of each case in terms of healthcare structure, process and outcomes
- The Institute of Medicine (IOM 2001) USA domains wherein practitioners/researchers analysed whether healthcare interventions were safe, effective, patient centred, timely, efficient and equitable.

Research Process

Each nurse-led service generated a case study, evaluating their infection prevention and control (IPC) and healthcare provision to homeless cohorts during COVID-19. Ethical approval for the research was granted from the DCU Ethics Committee and permission was granted by the managers of each service area for each evaluative case study to be undertaken. The practitioner researchers were supported by the core research team through each element of the research process as a means not only of producing a research outcome but as a method of developing research capacity among nurse practitioners. The wider team met monthly in the early stages with additional case centred support for specific teams. The practitioner researchers also engaged in three research workshops designed and delivered by the core research team.

Sample and Data Collection

In our research, objective data consisted of quantitative desk data including anonymised patient records, demographics and outcomes, work/process records, policies and practice reports pertaining to the 2020 pandemic period. These were collected in collaboration with services involved, using secure and anonymised data collection processes and adhering to GDPR requirements.

Qualitative data consisted of responses from nursing/multidisciplinary staff and service users gathered through focus groups and semi structured interviews. The research used purposive sampling wherein the population sample consisted of people who had experience of the nurse-led COVID-19 services. Participants were given the choice of attending a focus group or a one to one interview. Most healthcare practitioners (n33 of 39) chose focus group interviews and all service user participants (n20) chose one to one interviews.

Across the six case studies the following qualitative data collection was achieved

- Seven multidisciplinary focus groups comprising 33 participants - 17 nurses and 16 multidisciplinary team members.
- Six individual /one to one interviews with nurses (all female)
- Twenty individual/one to one interviews with service users (13 males and 7 females)

Interview guides for the focus groups and one to one interviews incorporated questions based on the Donabedian criteria and the IOM

domains (i.e. safety, patient centredness, effectiveness, efficiency, timeliness and equity of COVID-19 healthcare provision across service structures, processes and patient/service user outcomes).

Given that the research was conducted during COVID-19 when social distancing was required for infection prevention and control (IPC), all focus groups and nurse practitioner interviews were conducted online using Zoom technology. Some service user interviews were also conducted online and some were conducted face to face in outside locations or indoors adhering to social distancing and IPC guidelines, depending on participant preferences. Some service user interviews involved the use of interpreters. The focus groups were each conducted by one academic researcher and one practitioner researcher in as far as possible.

Data Analysis

Qualitative Analysis

A deductive approach was used in the qualitative analysis. Interviews and focus groups were transcribed and returned to each service team for member checking and analysis using the a priori Donabedian and IOM categories. Through this analytic method and with support from the core research team, interventions and perceptions described in the data were analysed in accordance with the evaluative criteria to generate findings, which were then configured into the case study for each service.

Statistical Analysis

The core research team provided assistance in analysing desk data from services. After retrieving the anonymised datasets in Microsoft Excel from each service, the research team used SPSS software version 25.0 (IBM corp.) for data archiving and analysis. Complete case analysis was utilized regarding specific demographics, interventions and outcomes, and cases with missing outcomes were excluded where necessary (none removed). Data characteristics were examined by descriptive analysis.

Triangulation of Data

The quantitative desk data and the qualitative data in each case were triangulated by the core research team using the Donabedian/ IOM criteria. Close attention was paid to where the qualitative and quantitative data supported particular conclusions and where discrepancies across the data sources were evident. Resolving discrepancies involved returning to the relevant service research team for clarity and amendment.

Cross Case Analysis

Following analysis of individual cases, a cross-case analysis was performed using Stake's (2006) cross-case analysis method. By comparing and contrasting cases, the core research team arrived at more generalised findings in relation to the IOM and Donabedian criteria that held true across the cases. As a result, findings regarding effective nurse-led COVID-19 interventions among homeless populations were distilled.

Findings and Recommendations

The findings and recommendations of the research (including the individual case studies) are presented in detail in the report chapters. In the report conclusion we describe some of the overall research highlights and reflect upon the strengths and limitations of the research. In this Executive Summary, the study findings and recommendations are reported under the following categories and subcategories which emerged through the data analysis

Categories	Sub-categories
1. Governance of COVID-19 service provision	Staffing and resources Level of prior pandemic preparedness Reconfiguration of practice environment C-19 training and updates Management, leadership, support for IH nurses Health and safety
2. Service user characteristics and support needs	Working with diverse/marginalised populations Service user education and support with IPC adherence Service user advocacy and rights
3. COVID-19 Care interventions	Triage COVID-19 Testing and Processing of results Contact tracing Isolation, cocooning, monitoring Supporting people with addiction issues Identifying and treating medical comorbidities Supporting people with mental health problems
4. Patient Care Systems and Inclusion Health Nurse Practice/Professional Development	Referrals and admissions Care as usual Discharge and follow up Interdisciplinary /interagency working Patient recording and communications systems Inclusion Health Nurse Practice/Professional Development

Category 1: Governance of COVID-19 Service Provision

Staffing and Resources
In the early stage of the pandemic, nursing staffing levels were generally considered as adequate. Nurses working across IH settings provided support to other homeless services.

Additionally, HSE management facilitated the redeployment of nurses from other community services. However, nursing workload increased significantly through taking on the IPC preparations and additional patient monitoring as well trying to maintain care as usual. Maintaining adequate staffing levels became more challenging as the pandemic progressed due to staff contracting the virus and taking sickness leave. Delays in allocating staff in one service and a lack of medical cover for periods in one services resulted in negative outcomes for safety, patient centredness, effectiveness efficiency and timeliness.

In our study, IPC supplies e.g. PPI etc. appeared to be timely and efficiently used. However, one service reported service management delays in getting COVID-19 literature translated into other languages.

Level of Prior Pandemic Preparedness
A recurring feature through the qualitative data are the many statements regarding the suddenness of the pandemic and the lack of initial preparedness in the national response which in turn affected service preparedness. Nurses and other staff frequently referred to the initial lack of guidance and knowledge as to how they could keep themselves and service users safe. Government and healthcare teams mobilised quickly, however the first weeks of COVID-19 were described as quite frightening and anxiety provoking, given that nurses were encountering symptomatic patients and there was an absence of safe, effective and efficient structures and processes for managing COVID-19. Inclusion Health services by their nature, need to be flexible and patient centred, therefore systems were set in place quickly. Nurses used their clinical decision making and observation skills and adapted/ innovated in practice, for example designing triage assessment processes, augmenting care for people who were medically vulnerable, providing extra support to Roma people. Some nurses highlighted that in these practices, they were developing nursing/healthcare knowledge and establishing IPC evidence.

The existing level of healthcare and housing for homeless populations also impacted pandemic preparedness. Many service users had untreated/undiagnosed medical conditions which left them more at risk of the adverse effects of COVID-19. Additionally, overcrowded and substandard accommodation in some areas compromised IPC. In the first wave of the pandemic, there was reduced healthcare utilisation for elective

and emergency acute hospital care due to lockdown and the closure of services.

Reconfiguration of Practice Environment

All services reconfigured practice environments to achieve IPC. This was challenging as many building structures were not ideal for IPC/ healthcare interventions e.g. congregated, antiquated accommodation, hotels. However, there were generally favourable responses to the provision of the extra 1,000 single unit accommodation from DRHE and tourist companies. Interestingly, a social worker participant described this provision as being like "the biggest Housing First experiment ever," in that homeless people were able to be placed in high quality accommodation with health and social supports.

COVID-19 Training and Updates

Nurses availed of training from HSE, NPHET, WHO. Study data indicated that nurses updated themselves, service users and other staff in all services which resulted in positive outcomes across all the IOM domains. Nurses reported the HSE online training as effective, however many services were exposed to the pandemic before they were able to avail of the training.

Management, Leadership, Support for IH Nurses

Line management was reported as generally providing good leadership and support. However, senior management were perceived as less engaged/supportive in one service. In this case, staff perceived senior level management as being slow to appreciate the nurses' clinical judgement regarding the severity and risks of the unfolding pandemic. There were resultant initial delays in achieving adequate nursing staff and medical support which eventually were forthcoming with persistence from nursing staff.

Health and Safety

The study data confirms that many structures and processes were established to preserve service user safety. A range of IPC precautions and interventions were evident across services including, social distancing, use of PPE, sanitising measures, IPC education and signage, triage, support with quarantine/isolation/cocooning, PCR testing, contact tracing, monitoring COVID-19 symptoms. Additionally staff protected service user safety through ongoing monitoring of physical health status, substance use withdrawal and mental health. Notably, additional security measures were required, particularly for the protection of families and children. There were significant numbers of children in some services, sharing accommodation services with adults outside their families. Nurses were keenly aware of safeguarding issues.

The IOM domain of safety refers to patient safety, however it must be highlighted that many nurses in our study related concerns about their own physical and psychological safety during the pandemic. This was particularly prevalent at the beginning of wave one when there was a lack

of guidance regarding what was safe and unsafe practice regarding IPC. Nurses were caught between the imperatives to provide hands on, one to one nursing care and the need to keep themselves and others safe. Additionally, outreach nurses in our study described the risks of going into remote areas or potentially dangerous neighbourhoods to carry out PCR testing.

Psychological stresses reported by nurses in our study included exhaustion and overwhelm, fear of making mistakes, fears of self or family contagion, being ill/in isolation, missing family and close contacts (especially nurses who had family members cocooning or whose families were living in other countries). Nurses were aware of formal psychological support /debriefing services, for example the Employee Assistance Programme (EAP) provided by the HSE, however they tended to rely on informal peer support measures (phone calls, videoconferencing, WhatsApp groups) in their own practice areas. It was not clear from the data how successful these measures were in maintaining psychological safety and wellbeing.

Recommendations for Governance of COVID-19 Service Provision

1. A systematic review of healthcare staffing levels, staff skill/role complements, attrition levels, service gaps and deployment across the pandemic period should be undertaken by the HSE with attendant workforce planning, factoring the possibility of future pandemics and avoiding redeployment and disruption to existing services.
2. Ongoing training in IPC measures and preparedness for all public facing staff should be provided by the HSE.
3. Irish IPC/ pandemic management and governance should analysed and evaluated alongside international evidence and practice and used to inform ongoing protocols and practice.
4. Health vulnerabilities in the homeless population need to be reduced through HSE led effective screening and primary, secondary and tertiary prevention, to improve virus resilience and to lessen the burden on stretched health services.
5. Standards for homeless accommodation should be reviewed and monitored in light of IPC guidelines to ensure that there is not overcrowding and that there are adequate facilities for IPC and short term healthcare provision if required.
6. Long term, effective combined housing and healthcare strategies should be mobilised involving the Departments of Health and Housing which simultaneously address housing need/supply and homeless health need and access.
7. Knowledge concerning social determinants of health and prevention/treatment of communicable disease should be augmented in HEI nursing and medicine education and incentivised in wider research activity.

8. Representation of nurses and healthcare practitioners at HSE senior management level should be increased, with more input into patient care generally and pandemic planning and response in particular
9. Health and safety protocols, guidance and governance need to be developed and implemented for populations with increased safety risk/safeguarding requirements in pandemic responses, for example; children in homelessness, older people in residential care, people with intellectual disabilities/mental health problems, people with addictions. Relevant statutory and advocacy agencies should be involved in this formulation and implementation.
10. Health and safety risk assessment and protocols regarding safe practice for practitioners in pandemic/emergency contexts should be undertaken/revised by the HSE/local services to avoid exposure to infection and to dangerous environments.
11. Wellbeing and psychological safety of practitioners needs to be addressed by the HSE as a matter of urgency with post pandemic debriefing, occupational resources and resilience building/ psychological preparedness for future pandemic/emergency events.

Category 2: Service User Characteristics and Support Needs

Working with Diverse and Marginalised Populations

Nurses in this study worked with a range of age groups and ethnicities with complex medical and psychosocial needs in the context of the pandemic. The scope of nursing practice could range from performing new-born/infant health assessments in direct provision to arranging cocooning accommodation, COVID-19 protection and palliative care for a terminally ill homeless person to die with dignity. The value of having nurses with specialist expertise in midwifery and childcare, migrant healthcare, addiction and mental health support involved in pandemic care cannot be overestimated. In the qualitative data, nurses recounted how they adapted practice to provide patient centred, holistic and equitable care to a range of populations. For example; trying to compensate for service gaps; providing diabetes/chronic illness education and care, additional maternal and child care support, understanding/supporting the unique contexts and concerns of migrants, mental health and wellbeing activities and supports, wrap around support to those with addictions. Desk data and qualitative data evidences effective outcomes of these person centred structures and processes across all IOM domains.

Service User Education and Support with IPC Adherence

All services provided client education. Nurses translated public health guidance/updates to user-friendly language using a range of methods; one to one, small socially distanced groups, online, video, use of leaflets, letters, posters translated to appropriate language, interpreter mediated. Nurses provided COVID-19 packs with sanitisers, hygiene products and other basic supplies. Positive outcomes for provision/implementation of IPC measures

were evident across all IOM domains. However, there were some risks of non-adherence through lack of service user prioritisation and engagement or through addiction or mental health issues. Nurses provided one to one explanations, reassurance, practical assistance with food/medication supplies, substance withdrawal/stabilisation support. Staff and service users reported that levels of IPC adherence increased across a range of cohorts with these supportive measures and positive outcomes were cited for safety, patient centredness, effectiveness, efficiency, timeliness and equity.

Service User Advocacy and Rights
Nonetheless, nurses experienced tension between the imperative of maintaining IPC and compromising service user autonomy and rights, particularly in attempting to ensure movement restrictions and isolation. Nurses commonly see themselves as advocates and this was a challenging position. As might be imagined, there were mixed outcomes for patient centredness because of the custodial type role nurses were required to adopt, however, there were some positive outcomes for safety, effectiveness and equity. The data also shows a range of advocacy interventions undertaken by nurses on behalf of service users during the pandemic. For example nurses in several services advocated with accommodation management and/or hostel staff to improve the placement conditions of vulnerable individuals or families. Nurses campaigned to ensure adequate isolation service provision for the Roma population. Additionally nurses educated homeless service staff regarding the symptoms of COVID-19 vs COPD, and advocated with hospital staff regarding the needs and rights of marginalised populations. Nurses in our study gave examples of adapting care to the wishes and preferences of individuals and families and involving people in care decisions as much as possible; a collaborative approach which is essential when working with homeless people.

Recommendation: Service User Characteristics and Support Needs
Service user/patients should be recruited to pandemic planning and intervention committees and groups to ensure inclusion of consumer perspectives and imperatives and public and patient involvement (PPI).

Category 3: COVID-19 Care Interventions

Triage
All services used triage processes with tailored assessment tools designed by nurses/MDT based on public health guidelines. These assessments involved a combination of questions regarding risk of contagion, health history, current health status and clinical observation of COVID-19 signs, symptoms and PCR testing (see individual case studies for examples). The triage assessment tools were regarded as being safe and effective, however the frequent updates, due to the evolving pandemic and changing IPC

guidelines, were regarded as time consuming. Given the requirement for a rapid response, triage assessments appear to have been developed at individual service level based mainly on national guidelines. Triage structures and processes involved follow up testing and referral/support for medical, addiction and psychosocial issues with possible isolation or cocooning depending on the outcome. Largely positive outcomes were cited across all IOM domains.

COVID-19 Testing and Processing of Results
In relation to COVID-19 testing, there were a mix of arrangements across services. Many nurses were not trained in PCR testing at the start of the pandemic. Safetynet nurses provided outreach support with testing in some services. Efficiency and timeliness outcomes in testing may have been slightly compromised in the short term, however as the pandemic progressed more nurses were PCR trained. The data describes evolving testing processes. Initially this was through outreach to where cases were located with testing on an individual basis. This was patient centred, equitable and effective to a certain extent, however it was not efficient and also posed some potential risks to staff safety. Mass testing was developed by healthcare teams and this was more effective and efficient. Mass testing was carried out in repurposed buildings, halting sites and migrant reception centres. With the opening of the Mater hospital COVID-19 Community Assessment Hub in May 2020, COVID-19 testing and support was made available onsite in addition to outreach mobile support.

PCR result processing followed a similar pattern to other structures and processes in the pandemic which depended on external governance; initially this was not efficient, effective or timely across services. Nurses reported usage of several testing labs which was time consuming and confusing. Additionally there were significant delays in receiving results. Services where one nurse was designated to manage the administration and liaison around testing and contact tracing achieved higher levels of efficiency and timeliness. One service developed its own testing capacity which resulted in a more rapid turnaround. As the pandemic progressed, lab testing and results became more efficient. With the later mass introduction of self-administered antigen testing, testing and result processes became more streamlined.

Contact Tracing
From the data, contact tracing appears to have been largely carried out by nurses within the services. This was reported qualitatively as being timely and efficient especially among Roma families in hotels, where it was relatively easy to identify contacts, however there was no quantitative data in this regard.

Isolation, Cocooning, Monitoring
Isolation and cocooning structures and processes appeared to be safe, effective, efficient and timely across the services. There were positive

outcomes for infection control, identification and treatment of medical/psychosocial issues, health/addiction stabilisation. Service users broadly welcomed the opportunity to have safe accommodation with health and social support. However, many service user participants found the process of self-isolation to be very distressing. Many homeless people are accustomed to having company and being mobile. Service user data revealed feelings of alienation, claustrophobia, anxiety and depression. Nurses recognised the potentially negative impacts of isolation on people with pre-existing trauma and mental health issues and kept close contact with people in isolation using a trauma informed care approach.

Monitoring for those in isolation and cocooning was achieved using daily check-ins, phone calls, texts and video consultations. Service users were asked about their general health and COVID-19 symptoms. Nurses in two services established the supply and use of pulse oximeters and disposable thermometers so that service users could self-monitor their oxygen saturation levels and temperature and report these to staff on the daily phone call. Monitoring interventions were regarded as time consuming as most service users remained stable and nurses were responding largely to anxieties and questions about COVID-19, however nurses highlighted that the monitoring intervention was effective in IPC and health protection, building trust, disclosure of health issues and reduction of ED visits. People who were assessed as being more vulnerable or at risk of deterioration of physical or mental health were monitored more closely. In one service with nurse-led mental health and addiction support, monitoring could be as intensive as half hourly and constant observation level.

Supporting People with Addiction issues

Nurses recognised and assessed addiction issues in the context of achieving successful COVID-19 isolation. This was an essential concern for safe and effective structures, processes and outcomes in pandemic care and involved multidisciplinary and interagency collaboration in providing medical stabilisation and opioid substitution treatment. Nurses took a lead role in this area through substance use assessments, ongoing monitoring, patient education/support and liaison work. The study data (quantitative and qualitative) reveals positive outcomes both in terms of the numbers established/re-established on stabilisation/OST and also service user reported improvements in health and quality of life.

Identifying and Treating Medical Comorbidities

Healthcare teams internationally attest to the opportunities provided by the pandemic lockdown to identify and treat comorbidities among homeless populations. Nurses in our study had positive outcomes in this regard and these successes were described as satisfying and encouraging. Through triage assessments, a range of undiagnosed/untreated diseases were detected, particularly among Roma and migrant populations. These included hypertension and cardiovascular disease, respiratory disease, diabetes, STI, Blood borne viruses - HIV/AIDS, Hepatitis, and TB. There

were also a number of pregnant women as well as infants who needed specialist healthcare interventions. Discovery of these conditions led to opportunistic care and treatment. Nurses described providing primary, secondary and tertiary prevention /education as well as direct healthcare interventions particularly in cases where outpatient services/clinics were not available. Significant numbers of service users were referred for GP or specialist medical follow up which resulted in establishment/re-establishment of ARV therapy and acute/ chronic illness treatment. While this was a positive outcome, detection of these conditions highlights the level of undiagnosed /untreated healthcare issues among the homeless population.

Supporting People with Mental Health Problems

Homeless service users experienced a range of feelings of distress during the pandemic. Data in our study revealed service user distress at receiving positive PCR results, fears around isolation, as well as anxiety about being able to manage physical, mental health and addiction issues. Nurses provided a range of supports, including communicating test results personally with one to one reassurance, physical and mental wellbeing group initiatives, exercise support, visiting in isolation, monitoring, physical/mental health support referrals and addiction support. This care resulted in positive outcomes across all IOM domains. There was little relapse prevention work done at the onset of the pandemic and the loss of customary services coupled with lack of social/communication opportunities resulted in increased rates of serious/enduring mental illness during COVID-19. In our study, nurses supported those with pandemic related distress as well as identifying more enduring/severe mental health issues. These interventions were evaluated positively by service users, however there were undoubtedly gaps in specialist mental health care and customary community mental health support services. The longer term outcomes of these deficits may become more obvious in time.

Recommendations: COVID-19 Care Interventions

1. Triage assessment practice and IPC protocols used in Ireland in the COVID-19 pandemic need to be reviewed in the context of international evidence and practice so that triage processes and practice can be standardised incorporating evidence and lessons learnt from countries where there has been more frequent/longer experience of pandemics. This should be undertaken at a national level by the HSE, involving local service engagement and collaboration
2. All nurses and medics (including students) should receive training in PCR testing and vaccination practice, facilitated by the HSE/HEIs.
3. For future pandemics, protocols regarding testing structures and processes (i.e. testing locations, staffing, testing of individuals, mass testing, inreach/ outreach testing) should be co-ordinated by the HSE, agreed across services, formalised and communicated.

4. Efficient and timely PCR result processing capacity should be commissioned/established by the HSE and available at the earliest stage of any future pandemic.
5. Further research is required regarding efficient and effective methods of contact tracing among homeless populations and this information used by the HSE to establish a shared electronic contact tracing system across all homeless health services.
6. All staff working in Inclusion health should have training in trauma informed care and the triggering potential of lockdowns and mandatory isolation. This could be supported by HSE and implemented through in-service training or more formal educational programmes
7. Based on the effectiveness of stabilisation, substitution and maintenance treatment for substance use during the pandemic, a full review should be commissioned by the HSE regarding effective practice and strategies in this area. Findings of this review and lessons learnt in COVID-19 should underpin a more pragmatic, accessible and effective substance use policy and practice approach.
8. Knowledge concerning health issues experienced by homeless people and appropriate treatment/support should be augmented by HEIs in all health and social care curricula.
9. Ambulatory and integrated care (including IH health outreach, IH liaison) in acute and community services for homeless people with chronic disease needs further investment and development by HSE and relevant service providers.
10. Incentives should be made available by homeless and health service providers, to encourage rough sleeper and hard-to reach populations to engage with screening services and to activate health/help seeking behaviour.
11. Mental health supports need to be augmented by the HSE during the occurrence of a pandemic or national emergency with increased (remote) access to key workers, mental health nurses and customary support services.

Category 4: Patient Care Systems and Inclusion Health Nurse Practice / Professional Development

Referrals and Admissions

Respondents in our study reported the referral and admissions processes as generally efficient and timely and the quantitative desk data support this evaluation. Referral routes were clear and referral requests were assessed within one day of receipt in all services. Admission criteria were transparent, low threshold and equitable. One service changed the admission criteria of clients having a negative PCR result prior to admission as this was causing

delays and barriers to admission. This service moved to conducting PCR tests following admission to increase efficiency and timeliness. Delays in admission could occasionally occur where the service user was reluctant to attend the service, commence isolation or where there was a delay in committing to/commencing OST. Some staff reported that a small number of service users did not turn up for admission for these reasons and that they held beds for a day or two to give people more time. While this was patient centred and equitable practice and did not seem to have adverse effects on efficiency as no other service users were delayed admission as a result, there may have been unavoidable impacts on patient safety with potentially deteriorating health and the resultant effectiveness of patient care.

Care as Usual

In the pandemic, nurses tried to maintain care as usual for the homeless population, for example, routine health screening/blood tests, health promotion and harm reduction interventions. However, many reported that this was challenging to achieve given that IPC and urgent care needs took priority and many community screening and outpatient services were not operating at full capacity. As previously discussed, care as usual was also a national issue.

Discharge and Follow up

Effective discharge planning has long been recognised as both a key intervention and a challenge in homeless healthcare. Historically, discharge protocols for this population have been poor. Restricted opening hours/cessation of services did impact discharge planning and nurses from residential services particularly, reported that some clients were kept longer than necessary as there was insufficient community support follow up for chronic healthcare needs or addiction support. While every effort was made otherwise, discharge of homeless people to unsuitable, health compromising living conditions, including rough sleeping following treatment, was unfortunately a feature of our study findings. The prevailing inadequate homeless housing and healthcare structures adversely affected healthcare outcomes post discharge in all IOM domains.

Interdisciplinary Interagency Working

Several examples of effective and efficient interdisciplinary working were evident in the data, particularly in addiction, healthcare and accommodation support. All services appeared to have positive and supportive relationships with multi-disciplinary teams including project workers, GPs/ medical staff, psychologists, administration staff, accommodation staff, psychologists. Nurses frequently commented on smooth and collaborative working relationships and multidisciplinary team members valued nursing leadership, initiative and holistic/integrated approaches to care.

Notwithstanding the closure or reduced working of some services in the COVID-19, interagency work was also regarded as essential, particularly between housing/social services and health. Nurses and IH teams had

worked for years in establishing these relationships and in our study nurses described using this social capital to advocate for service users as well as making visible their community connections to gain service user trust.

Communication and Recording Systems

The COVID-19 pandemic resulted in major transformation in service user - practitioner communication. With social distancing requirements, a large proportion of this interaction was technologically assisted and mediated. Healthcare teams rapidly accustomed themselves to videoconferencing methods for client assessments and interventions. While this was safe, effective and efficient in most circumstances, there were also a number of challenges, for example; the availability of smartphones/technology among homeless service users, Wi-Fi/connections and language difficulties among migrant populations. Services compensated for these issues by setting up designated areas with phones, laptops and translators so that homeless service users could avail of remote healthcare. Nurses were a strong and constant presence on the phone lines and WhatsApp /video consultations. Some described the challenges of carrying out video as opposed to face to face assessments, citing the difficulties of not being able to use touch and smell and that at times it was hard to visually assess particular health issues and nonverbal behaviour. However, technology assisted monitoring was regarded as generally effective for safety and IPC purposes. Nurses highlighted the flexibility of this medium, wherein practitioners and service users could access each other across geographical spreads and this added to efficiency and timeliness of responses to health concerns. Interagency and multidisciplinary online communication was regarded very positively. Nurses used phone calls, WhatsApp and video conferences for formal and informal meetings, interagency case conferences, work planning as well as emotional and pastoral support.

Staff respondents provided data highlighting mixed methods and efficacy of patient recording systems. Two services reported using Electronic Medical Record systems which enabled practitioners to securely view and enter data into patients' records. This was regarded as effective and efficient, enabling timely communication within and between services to the benefit of integrated patient care. However the EMR systems were by no means embedded and consistent across all IH or healthcare services and nurses reported using up to three patient recording systems in order to be able to share information with hospital staff involved in client care. This lack of interoperability in recording structures and systems compromises efficiency and timeliness and may indirectly affect safety and effectiveness of care.

The increased pandemic related workloads on nurses also compromised effective, efficient and timely recording of care interventions. Nurses described the amount of detailed liaison and care provision involved with complex cases and highlighted the impracticability of adequately recording this volume of work. Recording outreach or street work is also challenging and thus difficult to evaluate, therefore many nursing interventions remained

invisible. This issue also impacted on data collection for our study. Due to inconsistent recording systems or lack of familiarity with these, it was often difficult for nurses to locate and produce systematic, anonymised records of patient/service user demographics, presenting issues, specific interventions received and admission and discharge information for the desk data element of this study. Electronic Medical Record Systems and Digital health development is an area that is currently receiving attention among senior Irish healthcare management.

Inclusion Health Nurse Practice and Professional Development

Nurses in the study provided many examples of liaison and outreach work to ensure integrated care for service users, which reflect the findings of wider research attesting to the particular skills of IH nurses in reducing health and social inequalities for people who are homeless, identifying and addressing diverse unmet needs, finding flexibility in rigid health care systems and advocating for service user needs, as well as counteracting clients' previous negative healthcare experiences and increasing healthcare uptake. In our study, members of the MDT, particularly medical staff, referred to nurses as linchpins, using innovation and clinical judgement to lead out on safe, patient centred, effective, efficient, timely and equitable care. In these services, nurses are regarded as advanced practitioners, working on their own initiative and requiring little external monitoring or competence supervision. Some nurses highlighted that in their COVID-19 related practice, they were developing nursing/healthcare knowledge and establishing IPC evidence. Nurses also reported being sought after by health and social care practitioners and services for their expertise in such areas as substance use withdrawal and OST support, tissue viability and wound care. Nursing expertise in substance use/addiction support and the call to formalise and develop this role has been recommended in international research.

Recommendations: Patient Care Systems and Inclusion Health Nurse Practice/Professional Development

1. Given the level of morbidity and health issues in the homeless population, routine health screening/blood tests, health promotion and harm reduction interventions for adults and children should be maintained as far as possible in future pandemics whether in pre-planned or opportunistic mode.
2. Some hospitals have developed effective discharge protocols and processes for homeless populations. These successful initiatives need to become more generalised and supported by the DOH/ HSE with further appointments of nurses, medical staff and allied social/ health practitioners working in Inclusion Health roles.
3. Suitable living accommodation and appropriate community health support needs to be a mandatory element of all discharge protocols for homeless individuals. This involves collaboration between Departments of Housing, health and local services.

4. The effectiveness of technology assisted, digital and remote screening and care interventions delivered during COVID-19 should be evaluated for effectiveness and further potential incorporation into healthcare delivery.
5. Secure, shared electronic patient record systems that are fit for purpose need to be further developed between homeless healthcare and primary and secondary care with support from HSE and relevant IT services.
6. Research and review needs to be undertaken as to innovative and energy/time efficient methods of recording patient care requirements and interventions in outreach and dynamic environments.
7. Investment is required in technology infrastructure, the training and upskilling of health/social care staff using these systems as well as ongoing technological support for the continued smooth operation of technology assisted care interventions, communication and record keeping.
8. We recommend the full implementation of the recommendations from the report of the Expert Review Body on Nursing and Midwifery (Department of Health 2022) in relation to the recognition, development and educational support for community nursing advanced practice roles and integrated services.
9. Given that our research study and wider research evidence highlight the efficacy of nursing interventions in promoting health engagement among homeless and marginalised cohorts, inclusion health nursing should be recognised and supported to develop as a nursing specialism. This requires action from the Office of the Nursing and Midwifery Services Director (ONMSD), Department of Health (DOH) and the Nursing and Midwifery Board of Ireland (NMBI).
10. The development of integrated Inclusion Health nurse-led services should be progressed, in line with the Enhanced Community Care Programme and acute care services outlined in the HSE National Service Plan 2013 and supported by the implementation of the Enhanced Nurse/Midwife Contract.
11. The contribution of nursing interventions in substance use prevention, harm reduction and management should be evaluated and consideration given to the further development of addictions nursing as a specialised field, in accord with international developments.
12. A range of relevant and contemporary postgraduate education programmes in Inclusion Health, homeless health and addictions nursing should be developed and offered by HEIs to support nursing development in these areas.

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