Perspective Piece

Through COVID-19 and beyond: developing a multidisciplinary telehealth family intervention in first episode psychosis

Donal O'Keeffe¹ ^(b), David Marshall^{1,2}, Andrew Wheeler², Eoghan Allen², Helena Ronan², Amy Buckley²,

Eimear Counihan¹ and Mary Clarke^{1,3}

¹DETECT Early Intervention in Psychosis Service, Blackrock, Dublin, Ireland, ²Cluain Mhuire Community Mental Health Services, Blackrock, Dublin, Ireland and ³School of Medicine, Health Sciences Centre, University College Dublin, Belfield, Dublin, Ireland

Abstract

The COVID-19 pandemic presents unique challenges to high quality, safe Early Intervention in Psychosis (EIP) service provision. Due to the necessity to ensure EIP continues despite this, we developed a multidisciplinary, blended, telehealth intervention, incorporating psychoeducation and peer support, for family members of first episode psychosis service users: PERCEPTION. This perspective article aims to: describe PERCEPTION; offer reflections on our experience of delivering it; make recommendations for future research; and synthesise key learning to assist the integration of similar interventions in other EIP services. We provide a descriptive account of PERCEPTION's development and implementation, with reflections from the clinicians involved, on supporting families using this approach. We experienced telehealth as patient-focused, safe, and efficient and believe the intervention's blended nature augmented families' engagement. The approach adopted can assist service providers to attain balance between protecting public health and offering a meaningful, therapeutic intervention to support families in the current epoch.

Key words: Psychoeducation; family; psychotic disorders; telemedicine; peer support

(Received 21 July 2021; revised 20 October 2021; accepted 4 November 2021; First Published online 1 December 2021)

Introduction

Context

The COVID-19 outbreak was sudden and unexpected. The first known case in the Republic of Ireland was identified in Dublin on the 29th February 2020 and thereafter, as in many countries around the world, the infection rate accelerated rapidly. On March 11th 2020, the World Health Organisation declared a pandemic, warning that countries were not doing enough to stop contagion. Subsequently, the Republic of Ireland entered its first lockdown with the closure of all schools, colleges and other public facilities; the application of restrictions on social gatherings and closure of non-essential businesses; and the request for the general public to work from home, where possible, and for vulnerable citizens to 'cocoon' (Kennelly et al. 2020). Similar steps were taken across the globe. Despite substantial progress in safe and efficacious vaccine development and rollout, the long-term course of the pandemic remains uncertain (Skegg et al. 2021). Crucially, the net effect of COVID-19 on health systems internationally has been a radical transformation in how healthcare is provided

Cite this article: O'Keeffe D, Marshall D, Wheeler A, Allen E, Ronan H, Buckley A, Counihan E, and Clarke M. (2023) Through COVID-19 and beyond: developing a multidisciplinary telehealth family intervention in first episode psychosis. *Irish Journal of Psychological Medicine* **40**: 503–507, https://doi.org/10.1017/ipm.2021.79

(Mann *et al.* 2020) – the pace of change outstripping anything seen previously.

While justification for Early Intervention in Psychosis (EIP) services is multifarious (Correll et al. 2018; Lieberman et al. 2019; Behan et al. 2020), the need to ensure acceptable, timely and effective EIP service delivery has taken on renewed importance recently as the pandemic presents unique challenges to the provision of high quality, safe EIP services (O'Donoghue et al. 2020). Family members of people experiencing a first episode psychosis (FEP) are likely to have more need for support at this time, potentially experiencing: enhanced isolation; increased contact with their family member with psychosis in a restricted environment; deterioration of family relationships; and less access to in-person clinical team input (with carer burden amplified as a result). Along with the general population, such families may also be unable to enact many previously effective coping strategies (due to public health guidance) and their resilience is being challenged as a consequence.

Psychoeducational interventions for families of individuals experiencing psychosis have been shown to decrease global morbidities, perceived carer burden, negative caregiving experiences and expressed emotion within the family unit (Sin *et al.* 2017). There is also evidence that – more broadly defined family intervention (incorporating psychoeducation, problem-solving, emotional processing, stress management and communication components) – reduces family criticism of service users and frequency of conflict communication in early psychosis (Claxton *et al.* 2017).

© The Author(s), 2021. Published by Cambridge University Press on behalf of The College of Psychiatrists of Ireland.

Address for correspondence: Dr D. O'Keeffe, DETECT Early Intervention in Psychosis Service, Avila House, Block 5, Blackrock Business Park, Blackrock, Dublin, A94 Y030, Ireland. (Email: donal.okeeffe@sjog.ie)

Rationale for intervention development

From March 2020, with in-person family groups no longer viable in the Republic of Ireland, service delivery to families in the Dublin and East Treatment and Early Care Team (DETECT) EIP service was altered on the basis of public/occupational health advice, evolving clinical judgment and service capacity. Other considerations for service adaptation included limited resources, long prepandemic waiting lists and geographical factors posing barriers to care access. Due to the necessity to ensure EIP continues despite COVID-19, we developed a multidisciplinary, blended, telehealth intervention, incorporating psychoeducation and peer support, for family members of FEP service users: PERCEPTION (PsychoEducation for Relatives of people Currently Experiencing Psychosis using Telehealth, an In-person meeting and ONline peer support).

Aim

This article aims to: describe PERCEPTION; offer reflections on our experience of delivering it; make recommendations for future research in this area; and synthesise key learning to assist the integration of similar interventions in other EIP services during, in the aftermath of, and beyond the COVID-19 pandemic.

Setting

DETECT is Ireland's first EIP service. DETECT has responsibility for three geographically defined catchment areas, in South Dublin and Wicklow (Republic of Ireland), with a population of 390,000. DETECT conducts a rapid FEP assessment service and offers individually tailored interventions to people experiencing a FEP and their families. These include pharmacotherapies, physical health and lifestyle interventions, psychological interventions, family interventions and support, and vocational, educational, and psychosocial recovery interventions.

Article overview

A descriptive account will now be presented of the development and implementation of PERCEPTION, with reflections from the clinicians involved, on supporting families using a multidisciplinary, blended, telehealth approach.

PERCEPTION

Intervention development

In line with evidence of the advantages of multidisciplinary collaboration (e.g. an enhanced skill range to meet complex needs) (Mental Health Commission, 2006) and blended interventions (e.g. rapport facilitation) (Davies *et al.* 2020), we developed PERCEPTION to offer psychoeducation and peer support for families attending the DETECT service. This intervention aimed to educate families on psychosis, its treatment and the factors that influence recovery; provide guidance on communicating with a family member experiencing psychosis; and offer a safe space for families to share their lived experience and learn from each other.

PERCEPTION was delivered by social work, psychology and psychiatry predominantly over the online platform Zoom. Social work assessed clinical need, led intervention coordination and delivery, and established a safe, non-judgmental, online environment; psychology revised the intervention content for the online format and provided technical and mental health support during the intervention; and psychiatry offered medical guidance at a time when access to health services was greatly restricted.

Intervention structure

Prior to commencement, families were met in-person (adhering to public health guidance) by social work in DETECT. At this meeting, social work appraised family suitability, readiness, and motivation and provided initial informational, instrumental and emotional support. We deemed this initial in-person meeting necessary due to the isolation communicated by many families via telephone during the pandemic. We prioritised this meeting to conduct a comprehensive social work assessment of family needs and establish a therapeutic alliance to foster 'buy-in' for the online aspect of the intervention.

All PERCEPTION modules were co-facilitated by the members of the multidisciplinary team. Modules lasted 90 minutes and were delivered once per week over a 4-week period. Each intervention module comprised three components: online psychoeducation (30 minutes); an online 'questions and answers' session (15 minutes); and an online mutual peer support discussion session (45 minutes). The psychoeducation curriculum comprised four online modules, presented using Microsoft PowerPoint, in consideration of the impact of online delivery on attention spans (Rasheed *et al.* 2020). Intervention design was underpinned by psychoeducation and peer support theory (Castelein *et al.* 2015; Maheshwari *et al.* 2020). An outline of the topics covered in PERCEPTION's psychoeducation curriculum is displayed in Table 1.

The online 'questions and answers' session afforded families an opportunity to ask the multidisciplinary team questions related to the knowledge shared in each module. The online mutual peer support discussion session – founded on the principles of respect, shared responsibility and collective agreement of what is helpful (Mead *et al.* 2001) – aimed to offer families a safe space to voluntarily come together to help each other address common problems and shared concerns (Davidson *et al.* 1999). Families used this time to: articulate and normalise their lived experience (and for some – the trauma) of psychosis; develop new coping mechanisms for the family unit; and discuss ways of supporting their loved one.

In consideration of the privacy and security implications of telehealth (see Hall & McGraw, 2014 for a review) we implemented procedures to mitigate risk. We designed a consent form that ensured that all families engaged in the intervention from a safe, secure physical setting, free from interruptions. Participation required keeping video on throughout, using audio muting when appropriate, treating other families with respect, and maintaining confidentiality during, and after, the intervention. Limits to confidentiality were also made clear (e.g. the mandatory reporting of child protection concerns). Families were informed that Zoom operates using end-to-end encryption, that their use of Zoom requires acceptance of its privacy policy (https://zoom.us/ privacy), but that no information shared online would be stored by the team. A safety protocol was put in place prior to commencement. Each service user's FEP assessment was taken into consideration when determining the risk posed to families in taking part in the intervention. If risk to the wellbeing of service users, family members, or clinicians was identified, participants (and their loved one) were to be phoned by a team member to assess this risk. To ensure protection from harm, the relevant clinical team was to be informed of identified risk and, if necessary, emergency or police services were to be contacted in these

Table 1. PERCEPTION's psychoeducation curriculum

Module number	Title	Topics covered
1	What is psychosis?	A comprehensive synthesis of the biological, psychological, and social explanations of the features and causes and of psychotic symptoms
2	Treatments for psychosis	An overview of the key treatment modalities across disciplines that have an evidence base supporting their efficacy in psychosis
3	Communication and psychosis	A review of evidenced based guidance for communicating with a family member experiencing psychosis; underpinned by empathy, respect, and a focus on distress reduction; enabling denial, ambivalence, and delusional beliefs to be challenged sensitively
4	Relapse prevention	A synopsis of the factors that support and hinder recovery; relapse triggers and signatures; the Mental Health Act (Office of the Attorney General, 2001) ^a ; and Wellness Recovery Action Planning ^b

^aLegalisation underpinning psychiatric hospitalisation in the Republic of Ireland.^bA recovery framework that can assist a person to take ownership over their wellbeing and integrate self-management into daily life.

circumstances. If participants communicated distress, we sought to validate their difficult position, give them the option to stop taking part, and offer one-on-one phone and email support.

Engagement, support and follow-up

Two groups were run, in parallel, on different days over 4 weeks. Of the families invited, 60.71% of these commenced PERCEPTION. Of those families who began, 88.24% completed all sessions. We consider this a high degree of engagement in light of family engagement levels reported in EIP services elsewhere (Iyer *et al.* 2020). We provided a 'pre-Zoom' preparatory session to each family to identify and address potential technology glitches, usability issues, or problematic internet connections. Phone and email technical support was provided, if needed, by assistant psychologists, while groups were running.

One-month post-intervention, we followed up with families via Zoom to link in with and offer additional support to, the family unit. The 1-hour follow-up provided an update on the wellbeing of families and whether this had improved or worsened since intervention completion. In cases where the service user's mental health or the family dynamic had deteriorated, additional guidance and supports were provided. For example, families could be offered further follow-up via Zoom or telephone or service users could be referred to DETECT's clinical psychologist for individual therapy.

Discussion

Reflections on intervention delivery

We experienced telehealth, in this context, as patient-focused, safe and efficient. This is in line with best available evidence supporting the feasible implementation and acceptability of telehealth for mental health service users (Santesteban-Echarri *et al.* 2020), research identifying clinicians' largely positive attitudes towards telehealth (Connolly *et al.* 2020) and case examples describing telehealth's benefits in psychosis management (Donahue *et al.* 2021). A multidisciplinary team was necessary for delivery of condensed, concise, dynamic, educational presentations and the provision of vital support to families. In intervention delivery, we needed to be flexible and agile to engage in real-time team working and problem solving.

We believe certain features of PERCEPTION augmented accessibility, improved families' engagement in care, and contributed to our positive experience of providing it. We hypothesise that the blended approach adopted fostered trust, and consequently engagement, by enabling us to get to know families initially through in-person interaction (Farrelly et al. 2015). Families appeared happy to engage with this type of intervention as it could offer a safe and secure environment, enable participation from any location with an internet connection, and reduce carer burden (through enhancing ease of access to services - from home). While the experience of clinicians feeling 'uncomfortable' in situations involving high expressed emotion, complex countertransference reactions, and high-risk disclosure online have been previously reported with telehealth (Richardson et al. 2015), we perceived the online environment not to be conducive to such occurrences. We posit that this may be linked to how communication between clinicians and families occurred predominantly through group interaction via video or instant messaging. The emotional content of families' communication may have been curtailed as a consequence.

In line with conclusions of a recent literature review, we perceived telehealth to be a favourable environment in which to implement the principles of trauma informed care (Gerber *et al.* 2020). For example, using headsets promoted confidentiality and clinicians ensuring participants could see their body language promoted trustworthiness. Though PERCEPTION required additional technology and human resources (e.g. laptops for team members, a large monitor to enable an assessment of participant wellbeing throughout and extra clinicians to provide technical support to families).

It was our experience that the online environment was conducive to the type of peer support offered by the intervention. The vast majority of families freely shared aspects of their lived experience without being prompted by the team. However perhaps communication, prior to intervention commencement, of the relevance of all family experiences to learning about recovery in psychosis might have improved engagement. This could offset the risk of participants questioning the value of learning through peer support when circumstances differ between families. However, we believe that telehealth afforded families ample opportunity to interact, perhaps even more so than in-person interventions, where more extroverted families might dominate.

We encountered multiple barriers to intervention implementation, including the challenges of appraising distress online (due to the absence of in-person cues) and supporting participants to fully comprehend education material in a virtual environment. In order to promote a motivating group dynamic and to maintain momentum, we encouraged frequent use of the Zoom 'chat feature' during Microsoft PowerPoint presentations, role-played communication styles and posed questions to families to actively stimulate conversation, while sticking to strict timelines.

Recommendations and future directions

As PERCEPTION was developed and delivered out of necessity, rather than as a planned study, a scientific evaluation is now imperative. To our knowledge, evaluations of four telehealth psychoeducational interventions (augmented with peer support) for family members in psychosis have been published. The data available indicate such interventions are acceptable, feasible, and efficacious in enhancing knowledge about prognosis, reducing stress, and increasing perceived social support (Chan et al. 2016; Rotondi et al. 2005, 2010; Sin et al. 2014), but require adequate digital confidence, competence, and governance (Lobban et al. 2020). While our clinical experience corresponds with these data, there is currently an urgent need not just to replicate these studies but also to broaden evaluation foci. These include more rigorous quantitative appraisals of efficacy, that afford enhanced control of bias, as well as in-depth qualitative examinations, exploring: intervention acceptability; why certain aspects of the intervention were, or were not, helpful to families; the perceived value, benefits, harms and unintended consequences of the intervention; and families' recommendations for intervention improvement. For post-pandemic service planning, identifying the preferences for clinicians providing, and family members receiving, online versus in-person family interventions in FEP would be helpful. There is also a need for evidence on the extent of family member exclusion from telehealth due to sensory or cognitive impairment, poverty and the lack of digital literacy and how such obstacles can be surmounted.

Until such data are published, we recommend that post-pandemic – in line with the accessibility, choice and autonomy objectives of recovery oriented services (Davidson *et al.* 2008) – the option of receiving in-person or online interventions is offered to families. As a policy recommendation, we suggest that EIP services currently, and considering, utilising telehealth to provide services should consult guidelines for its use, identify the privacy, security, and administrative measures that should be taken, and assess the impact of their implementation (Watzlaf *et al.* 2017). Also, to optimise platform functionality and improve the support provided to families, training for clinicians in both telehealth and the use of newly developed online platforms is required.

Conclusion

In light of the vital role family members play in aiding recovery in psychosis (Wood & Alsawy, 2018), the influence of family dynamics on recovery outcome (Hinojosa-Marqués *et al.* 2020) and the impact of psychosis on the mental health of the family unit (Jansen *et al.* 2015), it is crucial that EIP for families is responsive and innovative, now and into the future, to prevent unnecessary human suffering through the COVID-19 pandemic and beyond. Adopting a multidisciplinary, blended, telehealth approach can assist service providers to attain balance between protecting public health and offering a meaningful, therapeutic intervention to support families in the current epoch.

Acknowledgements. The authors would like to acknowledge the families who completed the intervention and the Saint John of God Community Services Clg for providing the technology necessary to deliver it.

Conflict of interest. The authors have no conflicts of interest to disclose.

Ethical standards. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008. The authors assert that ethical approval for publication of this Perspective Article was not required by their local Ethics Committee.

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

References

- Behan C, Kennelly B, Roche E, Renwick L, Masterson S, Lyne J, O'Donoghue B, Waddington J, McDonough C, McCrone P, Clarke M (2020). Early intervention in psychosis: health economic evaluation using the net benefit approach in a real-world setting. *British Journal of Psychiatry* 217, 484–490.
- **Castelein S, Bruggeman R, Davidson L, Gaag M** (2015). Creating a supportive environment: peer support groups for psychotic disorders. *Schizophrenia Bulletin* **41**, 1211–1213.
- Chan S, Tse S, Sit H, Hui C, Lee E, Chang W, Chen E (2016). Web-based psychoeducation program for caregivers of first-episode of psychosis: an experience of Chinese population in Hong Kong. *Frontiers in Psychology* 7, 2006.
- Claxton M, Onwumere J, Fornells-Ambrojo M (2017). Do family interventions improve outcomes in early psychosis? A systematic review and meta-analysis. *Frontiers in Psychology* 8, 371.
- **Connolly S, Miller C, Lindsay J, Bauer M** (2020). A systematic review of providers' attitudes toward telemental health via videoconferencing. *Clinical Psychology: Science and Practice* **27**, e12311.
- **Correll C, Galling B, Pawar A, Krivko A, Bonetto C, Ruggeri M**, *et al.* (2018). Comparison of early intervention services vs treatment as usual for earlyphase psychosis: a systematic review, meta-analysis, and meta-regression. *JAMA Psychiatry* **75**, 555–565.
- Davidson L, Chinman M, Kloos B, Weingarten R, Stayner D, Tebes J (1999). Peer support among individuals with severe mental illness: a review of the evidence. *Clinical Psychology: Science and Practice* **6**, 165–187.
- Davidson L, Rowe M, Tondora J, O'Connell M, Lawless M (2008). A practical guide to recovery-oriented practice: Tools for transforming mental health care. Oxford University Press: New York, NY.
- Davies F, Shepherd H, Beatty L, Clark B, Butow P, Shaw J (2020). Implementing web-based therapy in routine mental health care: systematic review of health professionals' perspectives. *Journal of Medical Internet Research* 22, e17362.
- Donahue A, Rodriguez J, Shore J (2021). Telemental health and the management of psychosis. *Current Psychiatry Reports* 23, 1–6.
- Farrelly S, Lester H, Rose D, Birchwood M, Marshall M, Waheed W, Henderson R, Szmukler G, Thornicroft G (2015). Improving therapeutic relationships: joint crisis planning for individuals with psychotic disorders. *Qualitative Health Research* 25, 1637–1647.
- Gerber M, Elisseou S, Sager Z, Keith J (2020). Trauma-informed telehealth in the COVID-19 era and beyond. *Federal Practitioner* **37**, 302–308.
- Hall J, McGraw D (2014). For telehealth to succeed, privacy and security risks must be identified and addressed. *Health Affairs* **33**, 216–221.
- Hinojosa-Marqués L, Domínguez-Martínez T, Kwapil T, Barrantes-Vidal N (2020). Predictors of criticism and emotional over-involvement in relatives of early psychosis patients. *PLoS One* 15, e0234325.
- Iyer S, Malla A, Taksal A, Maraj A, Mohan G, Ramachandran P, Margolese H, Schmitz N, Ridha J, Rangaswamy T (2020). Context and contact: a comparison of patient and family engagement with early intervention services for psychosis in India and Canada. *Psychological Medicine* 46, 1–10 DOI 10. 1017/S0033291720003359.
- Jansen J, Gleeson J, Cotton S (2015). Towards a better understanding of caregiver distress in early psychosis: a systematic review of the psychological factors involved. *Clinical Psychology Review* 35, 56–66.
- Kennelly B, O'Callaghan M, Coughlan D, Cullinan J, Doherty E, Glynn L, Moloney E, Queally M (2020). The COVID-19 pandemic in Ireland: an overview of the health service and economic policy response. *Health Policy and Technology* 9, 419–429.
- Lieberman J, Small S, Girgis R (2019). Early detection and preventive intervention in schizophrenia: from fantasy to reality. *American Journal of Psychiatry* 176, 794–810.
- Lobban F, Appelbe D, Appleton V, Billsborough J, Fisher N, Foster S, et al. (2020). IMPlementation of An online Relatives' Toolkit for psychosis or bipolar (IMPART study): iterative multiple case study to identify key factors impacting on staff uptake and use. BMC Health Services Research 20, 1–13.
- Maheshwari S, Manohar S, Chandran S, Rao T (2020). Psycho-education in schizophrenia. In *Schizophrenia treatment outcomes: an evidence based approach* (ed. A Shrivastava and A De Sousa), pp 275–284. Springer: Cham.

- Mann D, Chen J, Chunara R, Testa P, Nov O (2020). COVID-19 transforms health care through telemedicine: evidence from the field. *Journal of the American Medical Informatics Association* 27, 1132–1135.
- Mead S, Hilton D, Curtis L (2001). Peer support: a theoretical perspective. *Psychiatric Rehabilitation Journal* **25**, 134–141.
- Mental Health Commission (2006). Multidisciplinary team working: From theory to practice. Mental Health Commission: Dublin.
- **O'Donoghue B, O'Connor K, Thompson A, McGorry P** (2020). The need for early intervention for psychosis to persist throughout the COVID-19 pandemic and beyond. *Irish Journal of Psychological Medicine* **38**, 214–219.
- Office of the Attorney General (2001). Mental Health Act (http://www. irishstatutebook.ie/eli/2001/act/25/enacted/en/print.html). Accessed 16 July 2021.
- Rasheed R, Kamsin A, Abdullah N (2020). Challenges in the online component of blended learning: a systematic review. *Computers and Education* 144, 103701.
- Richardson L, Reid C, Dziurawiec S (2015). 'Going the extra mile': satisfaction and alliance findings from an evaluation of videoconferencing telepsychology in rural Western Australia. *Australian Psychologist* 50, 252–258.
- Rotondi A, Anderson C, Haas G, Eack SM, Spring MB, Ganguli R, Newhill C, Rosenstock J (2010). Web-based psychoeducational intervention for persons with schizophrenia and their supporters: one-year outcomes. *Psychiatric Services* **61**, 1099–1105.

- Rotondi A, Haas G, Anderson C, Newhill C, Spring M, Ganguli R, Gardner W, Rosenstock J (2005). A clinical trial to test the feasibility of a telehealth psychoeducational intervention for persons with schizophrenia and their families: intervention and 3-month findings. *Rehabilitation Psychology* 50, 325–336.
- Santesteban-Echarri O, Piskulic D, Nyman R, Addington J (2020). Telehealth interventions for schizophrenia-spectrum disorders and clinical high-risk for psychosis individuals: a scoping review. *Journal of Telemedicine and Telecare* 26, 14–20.
- Sin J, Gillard S, Spain D, Cornelius V, Chen T, Henderson C (2017). Effectiveness of psychoeducational interventions for family carers of people with psychosis: a systematic review and meta-analysis. *Clinical Psychology Review* 56, 13–24.
- Sin J, Henderson C, Norman I (2014). Usability of online psychoeducation for siblings of people with psychosis. *International Journal of Technology Assessment in Health Care* 30, 374–380.
- Skegg D, Gluckman P, Boulton G, Hackmann H, Karim S, Piot P, Woopen C (2021). Future scenarios for the COVID-19 pandemic. *The Lancet* 397, 777–778.
- Watzlaf V, Zhou L, DeAlmeida D, Hartman L (2017). A systematic review of research studies examining telehealth privacy and security practices used by healthcare providers. *International Journal of Telerehabilitation* 9, 39–59.
- Wood L, Alsawy S (2018). Recovery in psychosis from a service user perspective: a systematic review and thematic synthesis of current qualitative evidence. *Community Mental Health Journal* 54, 793–804.