

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/347119560>

Telepsychiatry consultation for primary care treatment of children and adolescents under child protection services: a feasibility study from Chile (Preprint)

Preprint · November 2020

DOI: 10.2196/preprints.25836

CITATIONS

0

READS

16

6 authors, including:



Adrian P Mundt

University of Chile

100 PUBLICATIONS 1,546 CITATIONS

SEE PROFILE



Pablo Martínez

Université de Sherbrooke

47 PUBLICATIONS 173 CITATIONS

SEE PROFILE



Olga Maria Fernandez

University of Chile

23 PUBLICATIONS 100 CITATIONS

SEE PROFILE



Vania Martinez

University of Chile

90 PUBLICATIONS 820 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Psychiatric disorders during imprisonment [View project](#)



Informal coercion in psychiatry [View project](#)

Telepsychiatry consultation for primary care treatment of children and adolescents in child protection services: a feasibility study from Chile

Adrian Mundt, Matías Irarrázabal, Pablo Martínez, Olga Fernández, Vania Martínez, Graciela Rojas

Submitted to: JMIR Public Health and Surveillance
on: November 19, 2020

Disclaimer: © The authors. All rights reserved. This is a privileged document currently under peer-review/community review. Authors have provided JMIR Publications with an exclusive license to publish this preprint on its website for review purposes only. While the final peer-reviewed paper may be licensed under a CC BY license on publication, at this stage authors and publisher expressly prohibit redistribution of this draft paper other than for review purposes.

Table of Contents

Original Manuscript..... 5



Telepsychiatry consultation for primary care treatment of children and adolescents in child protection services: a feasibility study from Chile

Adrian Mundt^{1,2} MD, PhD; Matías Irrázabal^{3,4,5} MSc; Pablo Martínez^{6,7,8} PhD; Olga Fernández^{9,5} MSc, PhD; Vania Martínez^{10,8,5} PhD; Graciela Rojas^{11,8,5}

¹Universidad Diego Portales Santiago CL

²Clínica Psiquiátrica Universitaria, Universidad de Chile Santiago CL

³Departamento Psiquiatría y Salud Mental Universidad de Chile Santiago CL

⁴Departamento de Salud Mental, DIPRECE Ministerio de Salud Santiago CL

⁵Millennium Institute for Research in Depression and Personality (MIDAP) Millennium Science Initiative Program, ANID Santiago CL

⁶Clínica Psiquiátrica Universitaria, Hospital Clínico Universidad de Chile Santiago CL

⁷Millennium Institute for Research in Depression and Personality (MIDAP), Millennium Science Initiative Program, ANID Santiago CL

⁸Millennium Nucleus to Improve the Mental Health of Adolescents and Youths (Imhay) Millennium Science Initiative Program, ANID Santiago CL

⁹Unidad de Psiquiatría Infantil y del Adolescente, Departamento Psiquiatría y Salud Mental Universidad de Chile Santiago CL

¹⁰Centro de Salud Reproductiva y Desarrollo Integral del Adolescente Universidad de Chile Santiago CL

¹¹Departamento de Psiquiatría y Salud Mental Universidad de Chile Santiago CL

Corresponding Author:

Adrian Mundt MD, PhD

Universidad Diego Portales

Av. Ejército 233

Santiago

CL

Abstract

Background: Children and adolescents living under child protection services (CPS) have complex mental health care needs. The scarcity and geographical centralization of specialized mental health teams in Chile may limit the provision and quality of care for this vulnerable population. Telepsychiatry can address such health inequities.

Objective: The objective of this study was to evaluate the feasibility of a telepsychiatry consultation program (TCP) for the primary health care (PHC) treatment of children and adolescents living under CPS.

Methods: We developed a TCP for two rural PHC clinics located in central Chile (Valparaíso Region) and evaluated the implementation using a mixed methods study design. The TCP consisted of videoconferencing mental health consultation (MHC) sessions scheduled twice per month (90 minutes), over a six-month period, delivered by child and adolescent psychiatrists based in Santiago, Chile. We analyzed the number of MHC sessions, participant characteristics, perceived usefulness and acceptability, and experiences with the TCP.

Results: During the six-month study period fifteen videoconferencing MHC sessions were held. The TCP assisted PHC clinicians in assigning the most adequate diagnoses and making treatment decisions on pharmacotherapy, psychotherapy of 11 minors with complex care needs. The intervention was perceived to be useful by primary care clinicians for improving the resolution capacity in the treatments of this patient population. Connectivity issues were limitations that could be resolved in most sessions.

Conclusions: TCP was feasible and potentially useful to support PHC clinicians in the management of institutionalized children and adolescents with complex psychosocial care needs living in a resource poor setting. A larger scale trial should assess clinical outcomes in the patient population. Regulations and resources for this service model are needed to facilitate sustainability over time.

(JMIR Preprints 19/11/2020:25836)

DOI: <https://doi.org/10.2196/preprints.25836>

Preprint Settings

1) Would you like to publish your submitted manuscript as preprint?

✓ **Please make my preprint PDF available to anyone at any time (recommended).**

Please make my preprint PDF available only to logged-in users; I understand that my title and abstract will remain visible to all users.

Only make the preprint title and abstract visible.

No, I do not wish to publish my submitted manuscript as a preprint.

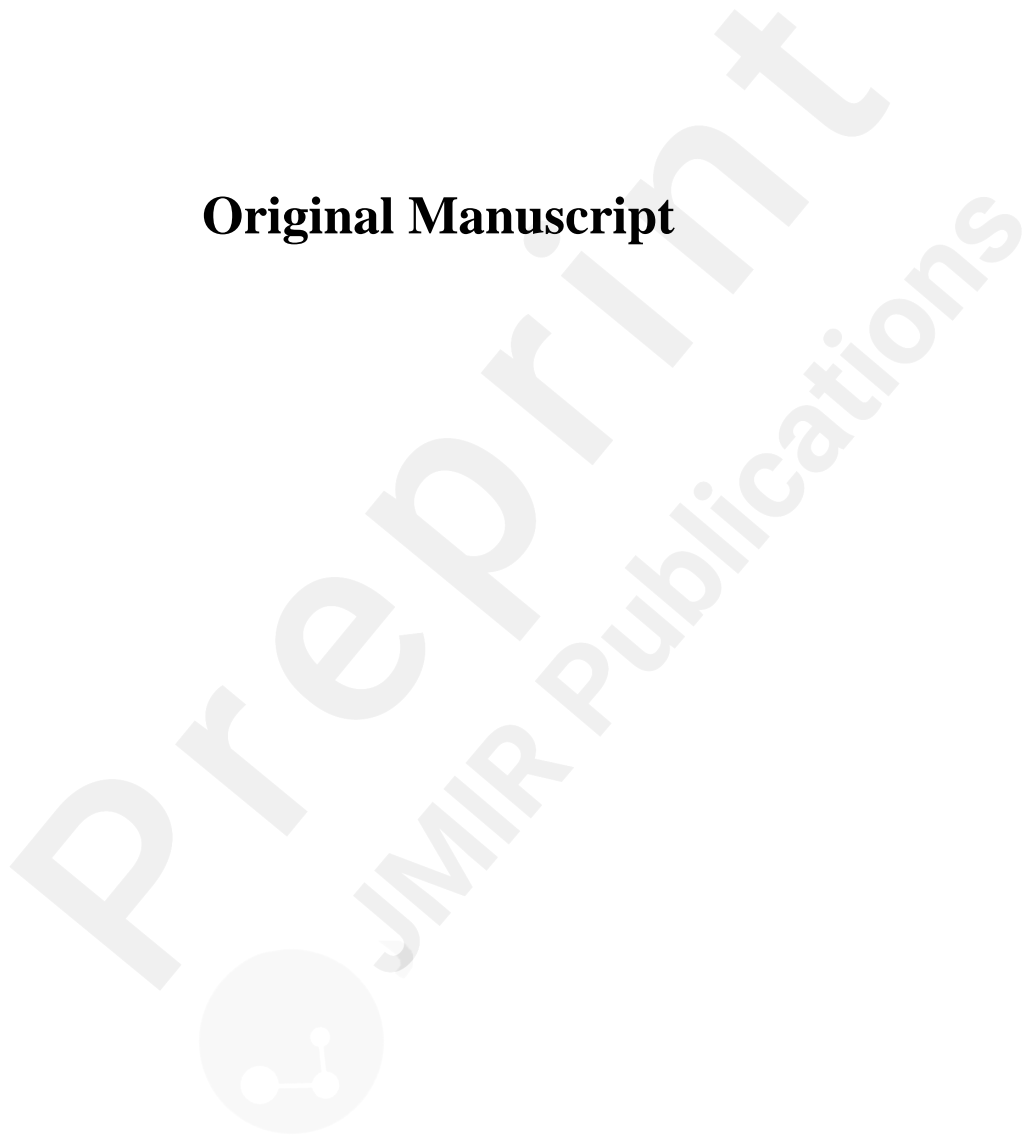
2) If accepted for publication in a JMIR journal, would you like the PDF to be visible to the public?

✓ **Yes, please make my accepted manuscript PDF available to anyone at any time (Recommended).**

Yes, but please make my accepted manuscript PDF available only to logged-in users; I understand that the title and abstract will remain visible to all users.

Yes, but only make the title and abstract visible (see Important note, above). I understand that if I later pay to participate in [JMIR Publications](#)

Original Manuscript



JMIR Public Health and Surveillance

Short Paper

Telepsychiatry consultation for primary care treatment of children and adolescents in child protection services: a feasibility study from Chile

Abstract

Background: Children and adolescents living under the supervision of child protection services (CPS) have complex mental health care needs. The scarcity and uneven distribution of specialized mental health teams in Chile may limit the provision and quality of care for this vulnerable population. Telepsychiatry can address such health inequities.

Objectives: The objective of this study was to evaluate the feasibility of a telepsychiatry consultation program (TCP) for the primary health care (PHC) treatment of children and adolescents living under the supervision of CPS.

Methods: We developed a TCP for two rural PHC clinics located in central Chile (Valparaíso Region) and evaluated its implementation using a mixed methods study design. The TCP consisted of videoconferencing mental health consultation (MHC) sessions scheduled twice per month (90 minutes), over a six-month period, delivered by child and adolescent psychiatrists based in Santiago, Chile. We described the number of MHC sessions, participant characteristics, perceived usefulness and acceptability, and experiences with the TCP.

Results: During the six-month study period fifteen videoconferencing MHC sessions were held. The TCP assisted PHC clinicians in assigning the most adequate diagnoses and making treatment decisions on pharmacotherapy and/or psychotherapy of 11 minors with complex care needs. The intervention was perceived to be useful by PHC clinicians for improving the resolution capacity in

the treatments of this patient population. Connectivity issues were limitations that were resolved in most sessions.

Conclusions: The TCP was feasible and potentially useful to support PHC clinicians in the management of institutionalized children and adolescents with complex psychosocial care needs living in a poorly resourced setting. A larger scale trial should assess clinical outcomes in the patient population. Regulations and resources for this service model are needed to facilitate sustainability and larger scale implementation.

Keywords: Telemedicine; Psychiatry; Primary Health Care; Child Protective Services.

Introduction

About half of the children and adolescents living under the supervision of child protection services (CPS) in high-income countries have mental disorders (1). In Chile – a Latin American, developing country – 69% of the population in CPS has mental disorders and complex psychosocial care needs, but the availability and uneven distribution of specialized mental health care (SMHC) in Chile limit the provision and quality of mental health care for this vulnerable population (2-4). This prompted the implementation of an inter-sectoral mental health care plan aimed to improve the collaboration between CPS, primary health care (PHC), and SMHC (5).

Telepsychiatry – videoconferencing to deliver mental health care – might address the shortage of SMHC by facilitating remote and timely access to quality care for underserved populations (e.g., rural populations) (6-8). Technology-based solutions increase the access to care, are acceptable by culturally diverse populations, and provide mental health outcomes comparable to in-person care (8, 9). These characteristics have also contributed to the role of telepsychiatry in emergency response to the current COVID-19 pandemic (10, 11). In Chile (12) and in other countries (13-15), child and adolescent telepsychiatry services have shown promising results for the treatment of mental disorders in PHC. These initiatives received positive feedback from healthcare providers serving CPS populations and reported increased use of outpatient resources for children with complex mental health care needs (16, 17). Since PHC professionals usually lack training in the treatment of complex mental health problems of CPS populations and CPS populations lack funds for traveling to receive SMHC far from their residencies, telepsychiatry solutions are promising to improve access and quality of care.

To our knowledge, no previous study has examined the partnership between SMHC and PHC to specifically treat CPS populations. The objective of this study was to evaluate the feasibility of a telepsychiatry consultation program (TCP) for the PHC treatment of children and adolescents living under the supervision of CPS.

Methods

Study participants and procedures

A feasibility study combining descriptive quantitative and qualitative methods was conducted in two rural PHC clinics located in the Valparaíso Region of Chile. PHC clinics were conveniently selected as local health services and staff were open to engage with this pilot project. Four psychologists and one physician working in the PHC clinics were recruited. These clinicians treated children and adolescents living under the supervision of CPS as part of their usual case load. We provided the technical infrastructure, security, and protocols needed to connect the rural PHC clinicians with the SMHC team – three child and adolescent psychiatrists who were working at the Department of Psychiatry and Mental Health of the Hospital Clínico Universidad de Chile, the Faculty of Medicine of the Universidad de Chile, and the Department of Psychiatry in the Hospital El Pino, Santiago. The following measures were taken to implement the intervention: 1) securing institutional permissions to move and install technological equipment; 2) installing computers and teleconferencing devices in the intervention sites; 3) ensuring that the PHC clinicians and the SMHC teams had compatible schedules; 4) training the PHC clinicians and the SMHC teams in the technical aspects of the interventions; and 5) running connectivity tests between the study sites to pilot the intervention. This study was approved by the IRB at the Hospital Clínico Universidad de Chile. PHC clinicians gave written informed consent and participated voluntarily at any time. Patients – children and adolescents living under the supervision of CPS – were not directly involved in the feasibility testing due to complicated consent procedures preceding their participation.

Intervention

The TCP used a computer-based teleconferencing service that met communication and security standards for voice over Transmission Control Protocol/Internet Protocol. Videoconferencing mental

health consultation (MHC) sessions were held between PHC clinicians and the SMHC team through a secure online treatment platform – i.e., closed network, personalized access passwords, and disabled recording function – using a desktop video-conferencing program (Vidyo).

Videoconferencing MHC sessions were scheduled twice per month over a six-month period, reserving time slots of 90 minutes. Electronic health records (EHRs) were implemented to share patient information (e.g., medical records, tests, professional reports) between PHC clinicians and the SMHC team. EHRs were updated after each videoconferencing MHC session. Neither in-person visits nor emergency treatments were included in the study, as PHC clinicians referred such cases to local SMHC consultants. The TCP was not provided to other populations.

The TCP followed the protocol of the Chilean Ministry of Health for MHC (18), providing diagnostic assistance, management recommendations for treatment-resistant cases, and SMHC referral assessment. A protocol of the Chilean Ministry of Health defines MHC as the joint and interactive activity between SMHC and PHC teams, occurring at least once per month, to facilitate the shared continuity of care (18). The MHC should include supervision, support and training regarding clinical cases, and the clinical and administrative coordination to guarantee care continuity (18). Before the implementation of videoconferencing MHC sessions, the established clinical routine was the in-person MHC.

Measurements and analysis

The number of videoconferencing MHC sessions held during the six-month study period was registered and compared to in-person standard MHC sessions – provided by local SMHC consultants – in the six months prior to TCP implementation. The following data were collected for each videoconferencing MHC session: 1) number and types of healthcare providers participating, duration (in minutes) of the session, and network connection technology used; 2) clinician-rated usefulness and acceptability (assessed with six closed Likert-type items, two questions with three answer

choices, and an open-ended box for comments); and, 3) clinical patient information and actions taken or agreed for patient management (retrieved through inspection of the shared EHRs). The aforementioned information was analyzed using descriptive statistics.

After the six-month study period, an open-ended, e-mail questionnaire explored the experiences of PHC clinicians and SMHC teams with the TCP (i.e., satisfaction, facilitators and barriers, and recommendations). Following a grounded theory approach (19), two researchers independently coded the data using open coding. Consensus was reached through discussion and the involvement of a third researcher to ensure intersubjective consensus.

Results

In the six months prior to the implementation of TCP, four MHC sessions (out of eight planned, 50%) were held. In contrast, during the six-month study period fifteen videoconferencing MHC sessions (out of twenty-four planned, 63%) were held. Nine videoconferencing MHC sessions were cancelled due to a strike of the healthcare workers, incompatible schedules, and low clinical demand. On average, videoconferencing MHC sessions were conducted every 3.7 weeks, lasted 66 minutes (range 30-100), covered 1.1 cases, and included the participation of 2.1 PHC clinicians. The SMHC team mostly used wireless connections (73%), while PHC clinicians used wired connections (73%). On two occasions, participants communicated over the telephone due to important and unresolved internet connectivity problems. Connectivity issues caused the shortening and/or interruption of 12 videoconferencing MHC sessions.

Most cases of minors included in the TCP were girls who lived in CPS (i.e., not with relatives) due to parental neglect (Table 1). The most frequent diagnostic hypothesis was mixed behavioral and emotional disorder (n = 5). Psychiatric comorbidity was reported in 64% (n = 7) of the individuals. The SMHC team mostly made recommendations about pharmacological schemes (n = 8), psychotherapies (n = 4), and psychopathological assessments (n = 4).

Data collected on each videoconferencing MHC session showed that these were clinically useful to PHC clinicians (Table 2), its duration was deemed adequate in 92% of occasions, and that, after each session, interest in participating in an additional session did not decrease.

Qualitative data analysis (Table 3) revealed that PHC clinicians and the SMHC team perceived the TCP as useful and that it helped to improve the quality of mental health care for minors living under the supervision of CPS. PHC clinicians expressed the need to maintain the TCP over time and stated that the intervention met their expectations regarding the methodology used and guidance on pharmacological treatments. The SMHC team emphasized that the TCP allowed them to train PHC clinicians in general aspects of mental health care, and to increase the resolution capacity of PHC clinicians. Key facilitators of the implementation were positive attitudes of the authorities of PHC, clinicians, and the SMHC team towards TCP. Incomplete patient information in EHRs was one of the main barriers to implementation, followed by technological and logistic difficulties. The availability of a support technician and more guidance on psychotherapy were recommendations made for future TCP implementations.

Discussion

Main findings

The implementation of TCP was feasible and supported PHC clinicians in diagnosing and/or treating children and adolescents with complex psychosocial care needs living under the supervision of CPS. The intervention was perceived to be clinically useful for the patient population, increased the resolution capacity of PHC clinicians and their willingness to receive a future TCP.

Strengths and limitations

This is the first study to report a TCP connecting SMHC teams with PHC clinicians to improve mental health care of minors living under the supervision of CPS. A protocol for future

implementations was developed. To improve the generalizability of the study results larger and geographically more varied samples are needed to reflect the heterogeneous scenario of PHC and CPS in resource poor Latin American contexts. A limitation of the study was that it did not directly assess mental health outcomes in the minors living under the supervision CPS. The common connectivity issues experienced during the study period were a further limitation, although they were timely fixed and usually did not affect the workflow of the MHC. Nevertheless, they may be important barriers to the adoption of TCPs in resource-constrained rural areas. The lack of patient information and history in the EHRs were important limitations of the implementation process, reflecting problems of sharing essential information between CPS, PHC, and SMHC.

Comparison with literature

In Chile, the use of technology-based solutions for the mental health care of remote and underserved populations has been important due to the geography and has become increasingly relevant during the COVID-19 pandemic – with a rapid shift to this mode of mental health service delivery to ensure access and continuity of care (11). For instance, partnerships between centralized SMHC teams and PHC clinicians through the implementation of call centers and EHRs have been reported to be acceptable and satisfactory for PHC clinicians and depressed adults and adolescents (12, 20). The present study is in line with these experiences and provides initial evidence for the feasibility of telepsychiatry – in the form of videoconferencing MHC and EHRs – to support PHC clinicians in the mental health care of children and adolescents with complex psychosocial care needs.

Evidence from the United States has provided strong foundations for the feasibility and potential efficacy of community-based child and adolescent telepsychiatry (13-15). Digital health interventions – including videoconferencing MHC – have also been found to be satisfactory and acceptable for healthcare providers, caregivers, and youths in juvenile community-based justice settings (21-23). Many of these youths came from CPS and have important behavioral health needs,

yet telepsychiatry interventions specifically aimed at addressing the needs of CPS population and their providers in community settings are lacking.

Experiences reported from the United States resemble the present study in that they have applied technology-based solutions to build partnerships between SMHC and community or PHC providers, having included data from CPS population in their analyses (16, 17). These statewide initiatives in Washington (16) and Wyoming (17) considered centralized child psychiatric telephone and videoconferencing MHCs for healthcare providers of Medicaid population. In these studies, MHC were initiated by community or PHC providers in need of guidance (16, 17). These studies demonstrated higher satisfaction among those providers treating institutionalized children and adolescents, significant declines in high-dose pediatric psychotropic prescribing, as well as increase in the use of outpatient and community-based treatments among this population.

Although our findings are in the same line as these experiences (16, 17), the present feasibility study was specifically aimed at supporting the PHC treatment of children and adolescents living under the supervision of CPS. The TCP provided a fixed schedule for the linkage between SMHC teams and PHC clinicians within the context of a specific inter-sectoral mental health care plan including CPS, PHC, and SMHC. These intersectoral alliances create an opportunity for further implementation, evaluation, and refinement of telepsychiatry.

Concluding remarks

Implementing a TCP was feasible and potentially useful for addressing mental health challenges in PHC of children and adolescents living under the supervision of CPS. Future programs may consider incorporating a child and adolescent psychologist to the SMHC team. To demonstrate the effectiveness of these interventions, a future clinical trial should assess clinical outcomes in the children and adolescents living under the supervision of CPS. Furthermore, future research should consider scaling the TCP to more PHC clinics, including a larger patient population. Health care

policies should be developed to provide regulation and resources for this model of mental health care, to be sustainable over time.



Acknowledgments

The authors wish to thank the Municipal Corporation of Quilpué and its health care centers for their participation in this study. They also acknowledge the Psychiatry Department of El Pino Hospital for allowing a child-adolescent psychiatrist to participate as consultant. This study was conducted as part of the e-mental health network of the Universidad de Chile, VID U-REDES-C_2018_07. This study was supported by Funds for developing a telemedicine project at the Hospital Clínico Universidad de Chile. MI, PM, OF, VM y GR received funding from the ANID Millennium Science Initiative /Millennium Institute for Research on Depression and Personality-MIDAP ICS13_005. PM, VM y GR received funding from the ANID – Millennium Science Initiative Program – NCS17_035. AM received funding from FONDECYT Regular 1190613, Agencia Nacional de Investigación y Desarrollo ANID, Republic of Chile.

Author Disclosure Statement

No competing financial interests exist.

References

1. Bronsard G, Alessandrini M, Fond G, Loundou A, Auquier P, Tordjman S, et al. The prevalence of mental disorders among children and adolescents in the child welfare system: A systematic review and meta-analysis. *Medicine* 2016;95(7).
2. Comité de los Derechos del Niño. *Informe de la investigación relacionada en Chile en virtud del artículo 13 del Protocolo facultativo de la Convención sobre los Derechos del Niño relativo a un procedimiento de comunicaciones*. Ginebra: Oficina del Alto Comisionado de Derechos Humanos de la Organización de las Naciones Unidas; 2018.
3. Minoletti A, Alvarado R, Rayo X, Minoletti M. *Evaluación del sistema de salud mental en Chile. Informe sobre la base del Instrumento de evaluación del sistema de salud mental de OMS (OMS IESM/WHO AIMS)*. Santiago, Chile: Gobierno de Chile; 2014.
4. Saldivia S, Vicente B, Kohn R, Rioseco P, Torres S. Use of mental health services in Chile. *Psychiatr Serv* 2004;55(1):71-6.
5. Valenzuela Azócar C, Santander Cortéz X, Véliz Rojas V, Cordero Rojas A, De Ferrari Fontecilla I. *Informe de Gestión SENAME de la Subsecretaría de Redes Asistenciales. Años 2016-2018*. Santiago, Chile: Ministerio de Salud; 2018.
6. Gardner JS, Plaven BE, Yellowlees P, Shore JH. Remote telepsychiatry workforce: a solution to psychiatry's workforce issues. *Curr Psychiatry Rep* 2020;22(2):8.
7. Myers CR. Using telehealth to remediate rural mental health and healthcare disparities. *Issues Ment Health Nurs* 2019;40(3):233-239.
8. Hilty DM, Sunderji N, Suo S, Chan S, McCarron RM. Telepsychiatry and other technologies for integrated care: evidence base, best practice models and competencies. *Int Rev Psychiatry* 2018;30(6):292-309.
9. Hilty DM, Rabinowitz T, McCarron RM, Katzelnick JM, Chang T, Bauer AM, et al. An update on telepsychiatry and how it can leverage collaborative, stepped, and integrated services to primary care. *Psychosomatics* 2018;59(3):227-250.
10. Kinoshita S, Cortright K, Crawford A, Mizuno Y, Yoshida K, Hilty D, et al. Changes in telepsychiatry regulations during the COVID-19 pandemic: 17 countries and regions' approaches to an evolving healthcare landscape. *Psychol Med* 2020;1-8.
11. Fischman P, Irarrázaval M. Debate: mental health, social crisis and the COVID-19 pandemic in Chile. *Child Adolesc Ment Health* 2020; 25(4):256-257.
12. Martínez V, Rojas G, Martínez P, Zitko P, Irarrázaval M, Luttgés C, et al. Remote collaborative depression care program for adolescents in Araucanía region, Chile: randomized controlled trial. *J Med Internet Res* 2018;20(1):e38.
13. American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Telepsychiatry and AACAP Committee on Quality Issues. Clinical update: telepsychiatry with children and adolescents. *J Am Acad Child Adolesc Psychiatry* 2017;56(10):875-893.
14. Myers K, Nelson E-L, Rabinowitz T, Hilty D, Baker D, Barnwell SS, et al. American telemedicine association practice guidelines for telemental health with children and adolescents. *Telemed J E Health* 2017;23(10):779-804.
15. Marcus S, Malas N, Dopp R, Quigley J, Krame AC, Tengelitsch E, et al. The Michigan child collaborative care program: building a telepsychiatry consultation service. *Psychiatr Serv* 2019;70(9):849-852.
16. Hilt RJ, Romaine MA, McDonnell M, Sears JM, Krupski A, Thompson JN, et al. The Partnership Access Line: evaluating a child psychiatry consult program in Washington State. *JAMA Pediatr* 2013;167(2):162-168.
17. Hilt RJ, Barclay RP, Bush J, Stout B, Anderson N, Wignall JR. A statewide child telepsychiatry consult system yields desired health system changes and savings. *Telemed J E Health* 2015;21(7):533-537.

18. Ministerio de Salud. *Orientaciones Técnicas: Consultorías en Salud Mental*. Santiago, Chile: Ministerio de Salud; 2016.
19. Strauss A, Corbin J. *Bases de la investigación cualitativa: técnicas y procedimientos para desarrollar la teoría fundamentada*. Medellín, Colombia: Universidad de Antioquia; 2016.
20. Rojas G, Guajardo V, Martínez P, Castro A, Fritsch R, Moessner M, et al. A remote collaborative care program for patients with depression living in rural areas: Open-label trial. *J Med Internet Res* 2018;20(4):e158.
21. Batastini AB. Improving rehabilitative efforts for juvenile offenders through the use of telemental healthcare. *J Child Adolesc Psychopharmacol* 2016;26(3):273-277.
22. Tolou-Shams M, Yonek J, Galbraith K, Bath E. Text messaging to enhance behavioral health treatment engagement among justice-involved youth: qualitative and user testing study. *JMIR Mhealth Uhealth* 2019;7(4):e10904.
23. Folk JB, Harrison A, Rodriguez C, Wallace A, Tolou-Shams M. Feasibility of social media-based recruitment and perceived acceptability of digital health interventions for caregivers of justice-involved youth: mixed methods study. *J Med Internet Res* 2020;22(4):e16370.

Table 1. Characteristics of eleven children and adolescents living under supervision of child protection services in rural Chile who were treated in a Telepsychiatry Consultation Program.

| Variable | N (%)¹ |
|--|--------------------------|
| Sex, female | 9 (82) |
| Mean age in years (\pmSD) | 14.1 (\pm 3.1) |
| Living situation | |
| Residency without family member | 5 (45) |
| Residency with family member | 3 (27) |
| Family (nuclear or extended) | 3 (27) |
| Reason for living under the child protection system² | |
| Abandonment | 1 (6) |
| Sexual abuse | 2 (12) |
| Maltreatment | 2 (12) |
| Parental neglect | 7 (41) |
| Sexual exploitation | 2 (12) |
| Rape | 1 (6) |
| Family violence | 3 (18) |

¹ Either frequency (percentage) or mean (standard deviation) are shown.

² May include more than one reason per case.

Table 2. Perceived usefulness of a Telepsychiatry Consultation Program, as rated by N=8 primary health care clinicians (range: 0-3).

| Item | Mean score (SD)¹ | Range |
|---|------------------------------------|--------------|
| Improved clinical understanding of the case presented | 2.6 (0.5) | 2-3 |
| Learning experience applicable to similar cases | 2.5 (0.5) | 2-3 |
| Guidance about medications and dosage | 2.6 (0.5) | 2-3 |
| Orientation about psychosocial interventions | 2.5 (0.7) | 1-3 |
| Benefit for the children and adolescents | 2.4 (0.6) | 1-3 |
| Benefit of for the primary health clinician | 2.8 (0.4) | 2-3 |

¹ Scores range from 0 to 3, with higher scores reflecting higher perceived usefulness.

Table 3. Synthesis of the main categories found in the qualitative data.

| Categories | Participants' insights |
|---|---|
| Usefulness of the intervention and improved quality of care | <p>“[Did the TCP help?] <i>Certainly, all the consultations and especially the last one... the person in charge of the team stated how useful the telepsychiatry consultations had been</i>”, psychiatrist #1.</p> |
| Need for continued support | <p>“<i>It would be very useful to keep this program available, for more months</i>”, primary health care psychologist #4.</p> <p>“<i>...It would be good for it to be a regular program, it would greatly contribute to mental health teams in primary care</i>”, primary health care psychologist #3.</p> |
| Meeting expectations | <p><u>On the methodology used</u></p> <p>“<i>There was a clear methodology and a well-defined way of handling each case</i>”, primary health care physician #1.</p> <p>“<i>The clinical advice enabled us to develop teamwork, which added dynamism to the care we delivered, ...communication became more effective, and that strengthened teamwork</i>”, primary health care psychologist #3.</p> <p><u>On guiding pharmacological treatments</u></p> <p>“<i>The goal of the consultations was met, especially regarding the clarification of</i></p> |

| | |
|--|--|
| | <i>doubts about the pharmacotherapy”, psychiatrist #1.</i> |
| Training primary health care practitioners and increased resolution capacity | <p><i>“It not only enabled us to give them advice about specific cases; we also trained them about more general aspects. I sent them complementary material for psychotherapy approaches”, psychiatrist#3.</i></p> <p><i>“I specifically helped them by increasing their self-confidence and facilitating their decision-making processes”, psychiatrist #1.</i></p> |
| Facilitators and barriers to implementation | <p><u>Facilitators to implementation</u></p> <p><i>“Openness of the directors, motivation of staff members”, primary health care psychologist #1.</i></p> <p><i>“The willingness to help of the psychiatrist”, primary health care psychologist #4.</i></p> <p><i>“Punctuality, willingness to participate and interest in the activity, they were open to my suggestions and advice as a consultant”, psychiatrist #1.</i></p> <p><i>“I enjoy teamwork and have a personal interest in telepsychiatry”, psychiatrist #2.</i></p> <p><u>Barriers to implementation</u></p> <p><i>“[On electronic health records] They don't include all the information that we'd need for an adequate teleconsultation session, for example, the medications that the pa-</i></p> |

tients were taking”, psychiatrist #3.

“The [residence] does not have full clinical records...about the patient”, primary health care physician #1.

“Interruptions due to technical problems such as internet access, availability of an office and/or computer”, psychiatrist #1.

“Sometimes we had no access to a computer and a suitable room..., which delayed the process”, primary health care psychologist #1.