

INPLASY PROTOCOL

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**Review Stage at time of this
submission:** Data analysis.

Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: What is the satisfaction of children/adolescents/young adults involved in telehealth services during the COVID-19 pandemic?

Satisfaction with pediatric telehealth services according to the opinions of young patients during the COVID-19 pandemic: A systematic review of the literature

Kodjebacheva, GK¹; Culinski, T²; Kawser, B³; Amin, S⁴.

Review question / Objective: What is the satisfaction of children/adolescents/young adults involved in telehealth services during the COVID-19 pandemic?

Condition being studied: Pediatric patients could be seen for any physical or mental health condition in this review. There was no restriction on the type of condition.

Eligibility criteria: The inclusion criteria were peer-reviewed studies with full-text in English with the objective of gaining perspectives on satisfaction among pediatric patients (rather than their caregivers) during the COVID-19 pandemic.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 December 2022 and was last updated on 30 December 2022 (registration number INPLASY2022120116).

Condition being studied: Pediatric patients could be seen for any physical or mental health condition in this review. There was no restriction on the type of condition.

METHODS

Search strategy: Search Strings by Database

PubMed

(((((("Pediatrics"[Mesh]) OR ("Child"[Mesh]) OR ("Adolescent"[Mesh]) OR (pediatric*[Title/Abstract]) OR (paediatric*[Title/Abstract]) OR (child*[Title/Abstract]) OR (teen*[Title/Abstract]) OR (adolescen*[Title/Abstract])))

AND

((("Telemedicine"[Mesh]) OR ("Remote Consultation"[Mesh]) OR (telemedicine[Title/Abstract]) OR ("video consultation"[Title/Abstract]) OR ("remote consultation"[Title/Abstract]) OR (telehealth[Title/Abstract]) OR ("remote consultation"[Title/Abstract]))) AND ("COVID-19" OR "COVID-19"[MeSH Terms] OR "SARS-CoV-2" OR "sars-cov-2"[MeSH Terms] OR "Severe Acute Respiratory Syndrome Coronavirus 2" OR "NCOV" OR "2019 NCOV" OR ("coronavirus"[MeSH Terms] OR "coronavirus" OR "COV"))

AND

(((((("Patient Satisfaction"[Mesh]) OR (satisfaction[Title/Abstract]) OR (attitude*[Title/Abstract]) OR (attitude*[Title/Abstract]) OR (perception*[Title/Abstract]))

EMBASE

('pediatrics'/exp OR pediatrics OR 'child'/exp OR child OR 'adolescent'/exp OR adolescent OR pediatric*:ti,ab OR paediatric*:ti,ab OR child*:ti,ab OR teen*:ti,ab OR adolescen*:ti,ab)

AND

('telemedicine'/exp OR telemedicine OR 'remote consultation'/exp OR 'remote consultation' OR telemedicine:ti,ab OR 'video consultation':ti,ab OR telehealth:ti,ab OR 'remote consultation':ti,ab)

AND ('covid 19'/exp OR 'covid 19' OR 'sars cov 2'/exp OR 'sars cov 2' OR 'severe acute respiratory syndrome coronavirus 2'/exp OR 'severe acute respiratory syndrome coronavirus 2' OR ncov OR '2019 ncov'/exp OR '2019 ncov' OR 'coronavirus'/exp OR coronavirus OR cov)

AND

('patient satisfaction'/exp OR 'patient satisfaction' OR satisfaction:ti,ab OR attitude*:ti,ab OR perception*:ti,ab)

PsychINFO

DE "Coronavirus" OR DE "COVID-19" OR TI ("COVID-19" OR "SARS-CoV-2" OR "Severe Acute Respiratory Syndrome Coronavirus 2" OR "NCOV" OR "2019 NCOV" OR "coronavirus" OR "COV") OR AB ("COVID-19" OR "SARS-CoV-2" OR "Severe Acute Respiratory Syndrome Coronavirus 2" OR "NCOV" OR "2019 NCOV" OR "coronavirus" OR "COV")

AND

(DE "Pediatricians" OR DE "Pediatrics") OR (DE "Child Health") OR TI (pediatric* OR paediatric* OR child* OR teen* OR adolescent*) OR AB (pediatric* OR paediatric* OR child* OR teen* OR adolescent*)

AND

(DE "Telemedicine" OR TI (telemedicine OR "remote consultation" OR "video consultation" OR telehealth) OR AB (telemedicine OR "remote consultation" OR "video consultation" OR telehealth)

AND

(DE "Satisfaction") OR (DE "Health Attitudes") OR TI (satisfaction OR attitude* OR perception*) OR AB (satisfaction OR attitude* OR perception*)

Filter: exclude dissertations

CINAHL

(((((MH Pediatrics+)) OR ((MH Child+)) OR ((MH Adolescent+)) OR ((TI pediatric* OR AB pediatric*)) OR ((TI paediatric* OR AB paediatric*)) OR ((TI child* OR AB child*)) OR ((TI teen* OR AB teen*)) OR ((TI adolescen* OR AB adolescen*))))

AND

((((MH Telemedicine+)) OR ((MH "Remote Consultation+")) OR ((TI telemedicine OR AB telemedicine)) OR ((TI "video consultation" OR AB "video consultation")) OR ((TI "remote consultation" OR AB "remote consultation")) OR ((TI telehealth OR AB telehealth)) OR ((TI "remote consultation" OR AB "remote consultation"))))

AND

(COVID-19 OR (MH COVID-19+) OR SARS-CoV-2 OR (MH sars-cov-2+) OR "Severe Acute Respiratory Syndrome Coronavirus 2" OR NCOV OR "2019 NCOV" OR ((MH coronavirus+) OR coronavirus OR COV))

AND

(((((MH "Patient Satisfaction+") OR ((TI satisfaction OR AB satisfaction))) OR ((TI attitude* OR AB attitude*))) OR ((TI attitude* OR AB attitude*))) OR ((TI perception* OR AB perception*))).

Participant or population: Young patients who answered items on their satisfaction with telehealth on their own were included. Adolescents were the primary patients. Children were also included if they answered items on satisfaction. Studies that mixed children/adolescents and young adults in one category were included as well.

Intervention: The intervention involved use of telehealth, telemedicine, remote monitoring, and/or remote consultations.

Comparator: There was no requirement that the study should have a comparison group for in-person or other medical services.

Study designs to be included: There was no restriction placed on study design because there was a limited number of studies on the topic. In addition to interventions, observational cross-sectional, cohort, and case-control studies using surveys and interviews assessing satisfaction among young patients were included.

Eligibility criteria: The inclusion criteria were peer-reviewed studies with full-text in English with the objective of gaining perspectives on satisfaction among pediatric patients (rather than their caregivers) during the COVID-19 pandemic.

Information sources: We searched the PubMed, CINAHL, PsychInfo, and Embase databases.

Main outcome(s): Satisfaction could include negative and/or positive experiences with telehealth. There was no standard measurement of satisfaction included. Investigations that created their own measurements and those that utilized reliable and/or valid and/or other measurements were included in this review. Synonyms of satisfaction in the

search words in the databases included attitudes and perceptions.

Quality assessment / Risk of bias analysis:

The quality of evidence was evaluated using two methods: the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach and the JBI critical appraisal tools. Randomized controlled trials receive a rating of high and observational studies receive a rating of low according to the GRADE approach. In this review, the ratings based on study design were as follows: randomized-controlled trial: high, quasi-experimental pre-post test study: moderate, cohort study (prospective) and case-control study (retrospective): low to moderate, and analytical cross-sectional study (retrospective): low. The validity and reliability of data collection tools were reviewed in a narrative table to describe any validity and reliability assessments for the questionnaires.

To further assess limitations of the studies, authors answered common questions across study type on JBI forms. Specifically, the questions were:

- Were the criteria for inclusion in the sample clearly defined?
- Were the study subjects and setting described in detail?
- Was the time period (such as months and years) of the study periods for each comparison group clearly defined?
- Were satisfaction outcome measures valid and reliable?
- Were appropriate statistical analyses used?

A score of 1 for the above questions represented Yes, a score of 0.5 represented Partially, and a score of 0 represented No or Unclear. Scores were summed up for each question for each investigation. Higher total scores represented higher study quality and lower risk of bias. Disagreements in GRADE quality levels and JBI critical appraisal forms scores were resolved by discussion and reaching a consensus.

Strategy of data synthesis: After using the search words in each database, all articles were uploaded into EndNote for removal of

duplicates. Following automatic removal of duplicates across databases in EndNote, remaining duplicates (such as due to differences in capitalization, author lists, and characters) were manually removed.

Following removal of duplicates, authors reviewed all remaining titles and abstracts. The reviewers resolved disagreements after reviewing the full-text of the article jointly. A consensus was researched between the authors on items when there were different opinions on inclusion.

Subgroup analysis: No subgroup analysis was performed.

Sensitivity analysis: No sensitivity analysis was performed.

Country(ies) involved: United States.

Keywords: telehealth, children, adolescents, satisfaction.

Contributions of each author:

Author 1 - Gergana Kodjebacheva.

Author 2 - Taylor Culinski.

Author 3 - Bushra Kawser.

Author 4 - Saman Amin.