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Online synchronous chat counselling for young people aged 12–25: a mixed methods systematic review protocol

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ABSTRACT

Introduction Youth mental health is a global issue, with 75% of many serious mental health difficulties emerging before the age of 25. An increase in the popularity of online counselling for young people's mental health has been seen in recent years, due to their accessibility, cost-effectiveness and reduced stigmatising effects. Online synchronous chat counselling consists of real-time, text-based, one-to-one chats with a mental health professional and/or trained volunteer. Literature to date examining the effectiveness of these interventions has been limited, and little is known about their design features, their acceptance, effectiveness and the therapeutic processes that contribute to their working.

Methods and analysis A mixed-methods systematic review of the literature will be conducted. PsycINFO MEDLINE, CINAHL, Web of Science and relevant grey literature will be searched for peer-reviewed, English language studies between January 1995 and June 2021. Backward and forward reference checking will be conducted. Quality of included articles will be examined using the Mixed Methods Appraisal Tool and a combination of the TIDieR checklist and a prepopulated data table will be used for extraction. A mixed methods review adopting a convergent-integrated design will be employed. Quantitative data will be transformed and analysed simultaneously alongside qualitative data using narrative synthesis.

Ethics and dissemination The research does not require ethical approval. Findings will be disseminated through peer-reviewed publications, academic conference presentations, academic social media and invited workshops, webinars and seminars.

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Strengths and limitations of this study

► This is a protocol describing an up-to-date systematic review focused on the ways in which online synchronous chat counselling interventions are designed, their active components and processes and whether there is evidence for their acceptance and effectiveness. Findings from this review will inform future service development and evaluation.

► This review will adopt a mixed methods approach. This is particularly useful when synthesising findings related to complex interventions, as qualitative findings can serve to further explore and contextualise the findings from quantitative studies.

► The involvement of young people in the design and development of research questions will enhance the resulting ecological validity of final review findings.

► A considerable amount of heterogeneity is anticipated across the literature, which may limit the number of randomised controlled trials for review. Due to this heterogeneity, a meta-analysis may not be possible.

young people accessing mental health services include poor mental health literacy, stigma around mental ill health and structural barriers relating to affordability, physical access to services and wait time.[8–10]

Young people spend a significant amount of time online, with the majority using social media platforms daily.[11 12] Unsurprisingly, increased interest has been placed in the potential capabilities of digital technologies to support youth mental health. Contributing further to this interest is the increasing number of young people that turn to the internet for mental health-related information.[13 14] Consequently, online interventions have emerged as a potentially viable method of providing support to young people experiencing mental health difficulties.[15] For a detailed description of the varying types of online interventions informed by Barak and colleagues,[16] see table 1. Some of the largest motivators for young people's use of these online services are lower associated costs, ease of access, increased autonomy and

INTRODUCTION

Youth is defined as the period between the ages of 12 and 25, encompassing both adolescence and emerging adulthood.[1] During this transitionary period, young people experience significant developmental changes that place them at potential risk for psychological vulnerability.[2] Indeed, it is estimated that 75% of serious mental health difficulties emerge before the age of 24.[3] As a result, youth mental health has emerged as the leading issue for young people globally.[4] Despite this, many young people report that they do not seek professional help for their mental health problems.[5–7] Barriers to

Table 1	Classification of online interventions
Type of online intervention	**Description**
Web-based educational interventions	Encompasses a range of psychoeducational interventions, generally provided via a static website that the user navigates, without any feedback or support provided.
Self-guided web-based interventions	Provides indirect support by way of interactive and often modularised web-based activities developed using evidence informed face-to-face interventions. Generally, they include the provision of partial automated feedback/support, with the overall aim of eliciting behaviour change.
Human supported therapeutic interventions	Seeks to elicit behaviour change in the user by providing often modularised interventions with feedback and partial direct support provided by a trained mental health professional, or in some cases a trained volunteer.
Online counselling and therapy	Sometimes referred to as e-therapy or e-counselling, these interventions are provided by a qualified mental health professional or trained volunteer. Support is given via a range of modalities such as video, telephone or text/webchat and delivered synchronously (real-time response) or asynchronously (delayed response). Interventions can be provided individually with a counsellor/trained volunteer or in a group setting.

control, emotional distance from a therapist and heightened anonymity.[17 18] Factors such as anonymity, increased control and emotional distance are thought to lead to what is known as the online disinhibition effect,[19] whereby individuals engaging online may be more likely to disclose personal information or express themselves more freely as a result of physical distance and anonymity.[20]

Online synchronous chat counselling, one of the most popular online counselling modalities, can be characterised by its real-time, text-based support provided on a one-to-one basis by a mental health professional.[21] The instant, real-time nature of online synchronous chats is of distinct benefit when compared with other modalities such as email-based asynchronous chat. This is evidenced in recent literature where young people and mental health professionals both highlighted 'poor timeliness and response' as a disadvantage of their email and text services.[18 22] As a result, many youth organisations are now offering these types of services globally, including KidsHelpline (Australia), KidsHelpPhone (Canada); Kooth (UK); eheadspace (Australia); Childline (UK/Ireland), BodyWhys (Ireland) and Jigsaw Live Chat (Ireland). Despite this rise, little is known about how these services are designed and evaluated. To date, findings examining the effectiveness of online synchronous chat counselling have been mixed. Studies comparing online synchronous chat counselling to telephone support for young people have indicated that online synchronous chat counselling is more effective,[23] equally as effective,[23] and less effective than telephone support.[24] Moreover, findings examining the acceptance of these interventions appear to be limited, that is studies focusing on the user experiences, perceptions and satisfaction postengagement.[25 26]

Effective evaluation of online interventions implemented in real-world environments can be difficult. This is particularly true for online synchronous chat counselling. The very features that serve to initially draw a variety of young people to this type of support (anonymity, 'drop-in') may impact the ability to evaluate their efficacy using traditional randomised controlled trial designs as well as their effectiveness. Adding to this complexity is the potential flexibility and variability in design due to the rapidly evolving nature of online

synchronous chat counselling. Interventions with such flexibility in design and delivery can be considered 'complex'.[27] Complex interventions are thought of as multifaceted, containing multiple interacting components that lead to levels of heterogeneity in intervention delivery, target populations, implementation and other contextual factors.[28 29] To understand how complex interventions are thought to achieve outcomes, it is particularly important to go beyond the traditional question of whether an effect exists and place emphasis on 'how' they are theorised to work.[30]

In this way, to appropriately evaluate complex interventions such as online synchronous chat counselling, it is crucial to examine the factors that encourage or hinder successful implementation of the intervention.[27 28 31] Processes or active components of therapy are those factors or steps through which the intervention occurs, leading to or impacting therapeutic change.[32] This includes specific factors (unique to the therapeutic modality such as techniques, methods and strategies employed to achieve change in the client[33] and non-specific or common factors (common to all psychotherapeutic interventions, such as client factors, therapist factors, therapeutic alliance, hope and expectations).[34–37] Given the stark differences in setting between online and offline interventions, one could anticipate that online synchronous chat counselling requires techniques specific to the modality to achieve outcomes. Little is known about the role of these common and specific processes and how they might impact the development and evaluation of outcomes in this unique modality of online counselling.

Current review
Online synchronous chat counselling interventions have increased in popularity in recent times. This increase has been compounded by the COVID-19 pandemic, which has had an unprecedented and profound impact on service provision, with many young people now seeking help via chat services online. Undoubtedly, since the onset of COVID-19, there has been a paradigm shift in mental healthcare for young people[38] To date, three reviews have examined online synchronous chat counselling,[15 39 40] with only one focusing on youth samples published in 2017.[15] These reviews have provided limited detail on

how online synchronous chat counselling interventions are designed, their acceptance and effectiveness and how they are theorised to work in practice. Given the complexities with respect to these interventions, there is a crucial need to collate and identify the key design characteristics, their acceptance and effectiveness, and what components and processes are crucial to successful implementation.

Objective and research questions

The aim of this review will be to build on previous research by providing a rigorous synthesis of online synchronous chat counselling for young people aged 12–25. This review will highlight crucial design features of online synchronous chat counselling, the acceptance and effectiveness of these interventions as well as the processes thought to contribute to their working. The following research questions will be addressed: (1) What are the key characteristics and design features of online synchronous chat counselling for young people? (2) What is the acceptance and effectiveness of online synchronous chat counselling for young people? (3) What are the key processes and components within these interventions?

This protocol outlines the intended analytical and methodological approaches that will be used for the systematic review.

METHODS AND ANALYSIS

This mixed-methods systematic review protocol has been developed in adherence to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Protocols checklist (see online supplemental material 1).[41] Any significant amendments made to the protocol will be documented and reported in the final systematic review manuscript.

Eligibility criteria

Peer-reviewed studies meet the review-specific inclusion criteria as informed by the Population, Intervention, Comparison, Outcome, Study design (PICOS) model,[42] see table 2.

Study population

To be included in this review, studies must focus on adolescents and/or young adults between the ages of 12 and 25 years engaging with online synchronous chat counselling. Studies will be included if the mean age of participants is between 12 and 25 and/or the majority (over 50%) of participants are within this age range.

Interventions

Studies examining mental health professional/trained volunteer delivered online synchronous chat counselling for young people aged between 12 and 25 will be included. Online synchronous chat counselling consists of real-time, text-based, one-to-one chats with a defined beginning and end point. Those studies focusing on group online synchronous chat counselling and individual/group online asynchronous chat counselling will be excluded. Phone and video support, web-assisted programmes, self-help programmes or programmes with no mental health professional/trained volunteer contact will also be excluded.

Comparators

Studies will be included regardless of whether they have a comparison group or not.

Table 2	Inclusion and exclusion criteria	
	Inclusion	**Exclusion**
Population	▶ Participants 12–25 years engaging with synchronous chat counselling (including studies where mean age and/or the majority of participants are within the 12–25 age bracket)	▶ Young people under the age of 12 and adults over the age of 25
Intervention	▶ Therapist/trained volunteer delivered synchronous chat counselling	▶ Asynchronous online chat counselling (email or otherwise). ▶ Group synchronous chat counselling. Group asynchronous chat counselling. ▶ Phone contacts ▶ Video contacts ▶ Web-assisted programmes, self-help programmes or programmes with no mental health professional/volunteer contact
Comparison	▶ Studies will be included whether they have a comparison group or not	▶ n/a
Outcome	▶ Interventions with mental health or well-being primary and/or secondary outcomes	▶ Interventions focused on outcomes not related to mental health or well-being.
Study design	▶ Quantitative studies ▶ Randomised and non-randomised studies ▶ Controlled and uncontrolled studies ▶ Mixed-methods studies ▶ Qualitative studies	▶ Literature reviews ▶ Case studies ▶ Book chapters ▶ Dissertations
Timeframe	▶ 1995 onwards	▶ Studies published before 1995

OUTCOMES

To be included in this review, studies must focus on online synchronous chat counselling for young people's mental health or well-being. In line with both the World Health Organisation's (WHO, 2004) definition and the Lancet commission on Global Mental Health's understanding of mental health,[43] this review will adopt a broad, dimensional conceptualisation of mental health and well-being. According to the Lancet commission, mental health is understood as 'an asset or a resource that enables positive states of wellbeing and provides the capability for people to achieve their full potential' (Patel *et al* p1562).[43] Mental health is also thought to exist on a continuum between mental health and mental disorder. Well-being is characterised as 'a positive construct that incorporates two related ideas: subjective satisfaction with life and positive affect or mood' (Patel *et al* p1562).[43]

Study design and analysis

A mixed methods review adopting a data-based convergent-integrated design will be employed. This will be informed by the Joanna Briggs Institute methodology,[44] whereby quantitative data will be transformed and a textual description of study characteristics (sample size and demographics, intervention description, processes employed, acceptance and effectiveness) and findings will be provided. This will then be combined with qualitative findings using the same categorisation. Addressing effectiveness, effect direction will be used, that is, evidence for improvement, deterioration or no evidence of change within outcome measurement. This method is commonly adopted in reviews with heterogeneous outcomes as well as those employing diverse effect measurement.[45]

Given the anticipated heterogeneity across intervention studies, Popay's three-step approach to narrative synthesis will be adopted, consisting of (1) developing a preliminary synthesis, (2) exploring relationships in the data and (3) assessing the robustness of the synthesis product guidance on narrative synthesis.[46] The preliminary synthesis will be conducted by grouping/clustering on key characteristics and features of the interventions, sample and study design. This initial synthesis will be informed in part by the Template for Intervention Description and Replication (TIDieR) checklist. The TIDieR checklist is a 12-item checklist, which provides a guide for describing interventions in sufficient detail.[47] While often adopted for use in primary evaluations, the TIDieR checklist is reported to improve the overall utility of review findings, thus improving evidence implementation.[48] The preliminary synthesis will allow for an informal investigation of heterogeneity across included studies.[49] Relationships (conflicting and supporting) between studies will be examined using a combination of tools such as conceptual modelling, translation and qualitative case descriptions. Finally, to assess the robustness of the synthesis, a process of critical reflection will be conducted.

Search results will be displayed using a PRISMA study flow diagram.[50]

Information sources and search strategy

Bibliographic databases and relevant grey literature will be searched. The following bibliographic databases will be searched: PsycINFO (via ProQuest), MEDLINE (via ProQuest), CINAHL (via Ebsco) and Web of Science. The first reports of online chat counselling occurred in the mid 1990s.[51] As such, databases will be searched from January 1995 to June 2021. There will be no geographic limits on studies. However, studies will be limited to English language. See online supplemental material 2 for list of full database search strategies. Backward reference and forward citation checking with final included articles will also be carried out to identify any additional key articles.

In addition to reducing potential publication bias, analysing grey literature is thought to provide further contextual information such as how an intervention works, for whom and under what circumstances.[52] As such, experts and those working in the field of online synchronous chat counselling will be consulted to provide relevant literature. The websites of services offering online synchronous chat counselling will be searched to identify any further literature of interest.

Data management

Search results from each database will be exported to EndNote bibliographic software (https://endnote.com/). EndNote will be used to manage, store and organise references. Covidence systematic review software (https://www.covidence.org/) will be used for title and abstract, full-text screening and data extraction. Backward reference and forward citation reference checking will be conducted using Citation Chaser (https://estech.shinyapps.io/citationchaser/).

Selection of studies and data extraction

Title and abstract screening will be carried out by two researchers (MT and MDO'R) using the above inclusion and exclusion criteria. Articles that match the criteria at this stage will be put forward for full-text screening. Full-text screening will also be carried out by two researchers (MT and MDO'R). Inter-rater reliability will be calculated via Covidence. Any additional articles found during the forward reference and backward citation checking process will be subjected to the same screening process outlined above. One researcher (MT) will conduct data extraction on all final included studies. Another researcher (MDO'R) will conduct data extraction on 25% of the final sample of included studies. Covidence's built-in data extraction tool will be used. To better capture context and intervention complexity, an adapted version of the TIDieR framework[47] will guide the extraction of intervention details. Specifically, item 4 '*What (procedure): Procedures, activities, and/or processes used in the intervention, including any enabling or support activities*'. will be expanded to capture not only explicit procedures and processes but those implicit active ingredients such as the therapeutic alliance and service user expectations and hope.

Additional to the TIDieR elements, the following study details will be extracted:

► Background information (eg, author, study date, country, study aims and objectives).
► Sample characteristics (including age, gender and presenting problems)
► Mental health and well-being outcome measure(s)
► Study findings (quantitative and qualitative (author-derived themes and direct quotations))

Quality of evidence

One researcher (MT) will appraise all final included studies for quality and another researcher (MDO'R) will appraise 25% of the final included studies using the Mixed Methods Appraisal Tool (MMAT).[53] The MMAT assigns a set of questions based on the specific study design. that is, qualitative, quantitative randomised control trials, non-randomised, descriptive or mixed methods. Where disagreements arise, they will be settled through discussion with coauthors (AO'R and AF).

Patient and public involvement

Youth participation in research projects has been shown to increase the relevance, youth friendliness and ecological validity of both research questions and findings.[54] During the initial planning phases of the review, a consultation was conducted with the Youth Research Council (YRC) at Jigsaw—National Centre of Youth Mental Health. The YRC is comprised of a group of young people (aged 16–25; n=9) who have a lived experience of mental health difficulty, are emerging researchers and/or have a passion for youth mental health. Members were asked to provide feedback on the review research questions. A short survey that included an overview of the background and aims of the review as well as proposed research questions was sent via Qualtrics Survey Software (https://www.qualtrics.com/uk/). Feedback from the survey (n=6) resulted in a set of refined research questions.

Ethics and dissemination

As no human or animal research participants will be involved in this review, ethical approval was not required. Findings from this review will be disseminated via a variety of modalities, including peer-reviewed journal publications, national and international academic conference presentations, academic social media and invited workshops, webinars and seminars.

DISCUSSION AND SUMMARY

This mixed-methods systematic review will examine the current evidence related to online synchronous chat counselling for young people aged 12–25. Results from this review will provide valuable insight into an underresearched and unique modality of online counselling. The findings will have utility in assisting mental health professionals, researchers and policymakers in designing, implementing and evaluating online synchronous chat counselling with young people.

It is worth noting that this study is not without its expected limitations. It is anticipated that there will be considerable heterogeneity in included studies, particularly with respect to outcomes (clinical heterogeneity), limiting the potential to conduct a meta-analysis. This may potentially limit the generalisability and comparability of results.

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PRISMA-P 2015 Checklist

Section/topic	#	Checklist item	Information reported		Line number(s)
			Yes	No	
ADMINISTRATIVE INFORMATION					
Title					
Identification	1a	Identify the report as a protocol of a systematic review	X		5-6
Update	1b	If the protocol is for an update of a previous systematic review, identify as such		X	n/a
Registration	2	If registered, provide the name of the registry (e.g., PROSPERO) and registration number in the Abstract	X		54
Authors					
Contact	3a	Provide name, institutional affiliation, and e-mail address of all protocol authors; provide physical mailing address of corresponding author	X		17-28
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	X		318-322
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments		X	n/a
Support					
Sources	5a	Indicate sources of financial or other support for the review	X		323-325
Sponsor	5b	Provide name for the review funder and/or sponsor	X		323-325
Role of sponsor/funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol		X	n/a
INTRODUCTION					
Rationale	6	Describe the rationale for the review in the context of what is already known	X		74-152
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	X		153-167
METHODS					
Eligibility criteria	8	Specify the study characteristics (e.g., PICO, study design, setting, time frame) and report characteristics (e.g., years considered, language, publication status) to be used as criteria for eligibility for the review	X		174-204

Supplemental material

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Section/topic	#	Checklist item	Information reported		Line number(s)
			Yes	No	
Information sources	9	Describe all intended information sources (e.g., electronic databases, contact with study authors, trial registers, or other grey literature sources) with planned dates of coverage	X		223-237
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	X		Supplementary Material 2
STUDY RECORDS					
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	X		247-253
Selection process	11b	State the process that will be used for selecting studies (e.g., two independent reviewers) through each phase of the review (i.e., screening, eligibility, and inclusion in meta-analysis)	X		254-275
Data collection process	11c	Describe planned method of extracting data from reports (e.g., piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	X		254-275
Data items	12	List and define all variables for which data will be sought (e.g., PICO items, funding sources), any pre-planned data assumptions and simplifications	X		254-275
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	X		194-204
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	X		277-283
DATA					
Synthesis	15a	Describe criteria under which study data will be quantitatively synthesized	X		205-229
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data, and methods of combining data from studies, including any planned exploration of consistency (e.g., I^2, Kendall's tau)		X	n/a
	15c	Describe any proposed additional analyses (e.g., sensitivity or subgroup analyses, meta-regression)		X	n/a
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned		X	205-229
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (e.g., publication bias across studies, selective reporting within studies)		X	n/a
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (e.g., GRADE)		X	As specified by the Joanna Briggs Institute,

Section/topic	#	Checklist item	Information reported		Line number(s)
			Yes	No	
					assessment of the quality of evidence of mixed methods reviews is not recommended (Lizarondo et al., 2020). While tools have been long established to assess the strength of both qualitative and quantitative bodies of evidence, such as GRADE and GRADE CERQual, there is no currently established tool to assess the strength of integrated mixed method reviews.

Supplementary File 2

PsycInfo Search String conducted 24.6.21

Date	PICO Term	Search Strategy	Limits
24.6.21	**P – Population**	all(MJMAINSUBJECT.EXACT("Emerging Adulthood") OR "young people" OR adolescen* OR youth OR teen* OR teenager OR "young adult" OR "young adulthood" OR "young adults" OR "emerging adult" OR "emerging adulthood" OR "emerging adults" OR student* OR child* OR youth)	Limited to articles available in English, peer reviewed articles and those published after January 1995.
		AND	
	I - Intervention	all(MJMAINSUBJECT.EXACT("Telepsychology") OR MAINSUBJECT.EXACT("Text Messaging") OR MJMAINSUBJECT.EXACT("Online Therapy") OR "online therapy" OR synchronous OR chat OR "web-based intervention" OR "synchronous chat" OR "chat support" OR 'text-based' OR SMS OR "single session counselling" OR "online counselling" OR "online counseling" OR "e-Therapy" OR Telehealth OR eCBT OR iCBT OR "dialogue system" OR "distance counselling" OR "distance counseling")	
		AND	
	O - Outcome	all(MJMAINSUBJECT.EXACT("Adolescent Psychology") OR (MJMAINSUBJECT.EXACT("Well Being") OR MJMAINSUBJECT.EXACT("Mental Health") OR MAINSUBJECT.EXACT("Mental Disorders") OR MAINSUBJECT.EXACT("Suicide") OR MAINSUBJECT.EXACT("Psychological Stress") OR "mental health" OR wellbeing OR "well-being" OR "well being" OR "mental health disorder" OR "mental health issues" OR "psychological issues" OR "psychological disorder" OR "psychological wellbeing" OR "emotional wellbeing" OR suicid* OR "mental Illness" OR "quality of life" OR "resilience"))	

Medline Search String Conducted 24.6.21

Date	PICO Term	Search Strategy	Limits
24.6.21	**P – Population**	(((MJMESH.EXACT("Adolescent") OR MJMESH.EXACT("Young Adult") **OR** "young people" OR adolescen* OR youth OR teen* OR teenager OR "young adult" OR ("emerging adult" OR "emerging adulthood" OR "emerging adults") OR student* OR child* OR youth)	Limited to articles available in English, peer reviewed articles and those published after January 1995.
		AND	
	I - Intervention	(MESH.EXACT ("Telemedicine") OR MESH.EXACT("Text Messaging") OR MJMESH.EXACT("Distance Counseling") **OR** "Online Therapy" OR synchronous OR chat OR "Web-based intervention" OR "chat support" OR 'text-based' OR SMS OR "single session counselling" OR "online counselling" OR "online counseling" OR "e-Therapy" OR Telehealth OR eCBT OR iCBT OR "dialogue system" OR "distance counselling" OR "distance counseling")	
		AND	
	O - Outcome	(MJMESH.EXACT("Mental Health") OR MJMESH.EXACT("Adolescent Health") OR MESH.EXACT("Stress, Psychological") OR MESH.EXACT("Mental Disorders") OR MESH.EXACT("Resilience, Psychological") OR "mental health" OR wellbeing OR "well-being" OR "well being" OR "mental health disorder" OR "mental health issues" OR "psychological issues" OR "psychological disorder" OR "psychological wellbeing" OR "emotional wellbeing" OR suicid* OR "Mental Illness" OR "quality of life" OR resilience)	

CINAHL Search String Conducted 24.6.21

Date	PICO Term	Search Strategy	Limits
24.6.21	**P – Population**	(MM "Adolescence") OR (MM "Young Adult") **OR** "young people" OR adolescen* OR youth OR teen* OR teenager OR "young adult*" OR "emerging adult*" OR student* OR child* OR youth	Limited to articles available in English, peer reviewed articles and those published after January 1995.
		AND	
	I - Intervention	(MM "Telehealth") OR (MM "Internet-Based Intervention") OR (MH "Text Messaging") OR (MM "Telepsychiatry") **OR** "online therapy" OR synchronous OR chat OR "web-based intervention" OR "chat support" OR 'text-based' OR SMS OR "single session counselling" OR "online counselling" OR "online counseling" OR "e-Therapy" OR Telehealth OR eCBT OR iCBT OR "dialogue system" OR "distance counselling" OR "distance counseling")	
		AND	
	O - Outcome	(MM "Mental Health") OR (MM "Psychological Well-Being") OR (MH "Suicide") **OR** "mental health" OR wellbeing OR "well-being" OR "well being" OR "mental health disorder" OR "mental health issues" OR "psychological issues" OR "psychological disorder" OR "psychological wellbeing" OR "emotional wellbeing" OR suicid* OR "mental Illness" OR "quality of life" OR "resilience")	

Web of Science Search String Conducted 24.6.21

Date	PICO Term	Search Strategy	Limits
24.6.21	**P – Population**	(ALL=("young people" OR adolescen* OR youth OR teen* OR teenager OR "emerging adult*" OR student* OR child* OR youth OR "young adult")	Limited to articles available in English, peer reviewed articles and those published after January 1995.
		AND	
	I - Intervention	ALL=(synchronous OR chat OR "synchronous chat" OR "Web-based intervention" OR "chat support" OR 'text-based' OR SMS OR "single session counselling" OR "online counselling" OR "online counseling" OR "e-Therapy" OR Telehealth OR eCBT OR "dialogue system")	
		AND	
	O - Outcome	ALL=("mental health" OR wellbeing OR "well-being" OR "well being" OR "mental health disorder" OR "mental health issues" OR "psychological issues" OR "psychological disorder" OR "psychological wellbeing" OR "emotional wellbeing" OR suicid* OR "Mental Illness" OR "quality of life" OR "resilience"))	