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Austrian Institute for
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GmbH

Mental health screening of adults in primary care

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AAFP.....American Academy of Family Physicians
ASSIST.....Alcohol, Smoking, and Substance Involvement Screening Test
AUDIT.....Alcohol Use Disorders Identification Test
AWMF .....Association of the Scientific Medical Societies in Germany [Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften]
BÄK.....German Medical Association [Bundesärztekammer]
BCCSU.....British Columbia Centre on Substance Use
BDI.....Beck Depression Inventory
CAGE.....Cut down, Annoyed, Guilty, and Eye-opener
CANMAT .....Canadian Network for Mood and Anxiety Treatments
CES-D .....Center for Epidemiological Studies Depression Scale
CI.....Confidence interval

DDG.....German Diabetes Society [Deutsche Diabetes Gesellschaft]

DDG.....German Diabetes Society [Deutsche Diabetes Gesellschaft]

DEGAM.....German Society of General Practice and Family Medicine [Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin]

DGPPN.....German Association for Psychiatry, Psychotherapy and Psychosomatics [Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde]

DGVS.....German Society for Digestive and Metabolic Diseases [Deutsche Gesellschaft für Gastroenterologie, Verdauungs- und Stoffwechselkrankheiten]

DSM.....Diagnostic and Statistical Manual of Mental Disorders

e.g. .....exempli gratia

GAD .....Generalized Anxiety Disorder scale

GDS.....Geriatric Depression Scale

GHQ.....General Health Questionnaire

GoR .....grade of recommendation

HADS.....Hospital Anxiety and Depression Scale

HDRS.....Hamilton Depression Rating Scale

HRQoL .....health-related quality of life

IBS.....irritable bowel syndrome

ICD .....International Classification of Diseases

IQWiG.....German Institute for Quality and Efficiency in Health Care [Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen, IQWiG]

KBV.....National Association of Statutory Health Insurance Physicians [Kassenärztliche Bundesvereinigung]

MDD .....Major Depression Disorder

NA .....not applicable

NI .....no information

NICE.....National Institute for Health and Care Excellence

NR.....not reported

PCOS.....Polycystic ovary syndrome

PHQ .....Patient Health Questionnaire

RACGP .....Royal Australian College of General Practitioners

RCT.....randomised controlled trial

SASQ.....Single Alcohol Screening Question

SR.....systematic review

UK.....United Kingdom

US.....United States

USPSTF.....US Preventive Services Task Force

Executive Summary

Background and project aim

In Austria, about one in five adults experience mental illness annually, most frequently depression (10%), anxiety disorders (7%), and substance use disorders (12%). Those with lower socioeconomic status and with physical illnesses are particularly affected. Screening aims to identify undiagnosed conditions or at-risk individuals and must be understood as a complete system, not just a single test. This report systematically reviews the evidence for screening for the three most common mental illnesses, describes screening methods and their characteristics, and examines the implications of implementing a screening programme.

Austria: one in five adults experience mental illness

report reviews evidence for mental health screening, screening methods, and implications of implementation

Methods

We conducted a systematic search in five databases and included systematic reviews, HTA reports, and evidence-based guidelines. Additionally, we performed manual searches in G-I-N and TRIP databases and guideline organisation websites. The methodology included blinded literature selection, data extraction with double-checking, and quality assessment using ROBIS for systematic reviews and AGREE-II for guidelines. The information was summarised into tables and analysed narratively.

systematic search for systematic reviews (SR) and evidence-based guidelines; hand search; quality assessment using ROBIS and AGREE-II

Results

RQ 1: Evidence on effectiveness of screening and guideline recommendations

Nine systematic reviews (SRs) and 28 guidelines were included. Five SRs on depression screening showed mixed results and insufficient evidence for general screening, though 18 of 19 guidelines recommended depression screening either for the general population or specific conditions. Two SRs for anxiety disorders found insufficient evidence for screening. Of 13 guidelines on anxiety screening, two recommended screening for the general population, one for those with risk factors, and ten for specific conditions. For substance use, two SRs found no studies on screening effectiveness. Eight guidelines recommended screening for alcohol use, three guidelines advocated for tobacco use screening in the general population, and two guidelines recommended drug use screening (one for the general population and one for socially disadvantaged individuals), while according to one guideline, there is currently no suitable tool for prescription drug use screening.

RQ 1: inclusion of 9 SRs and 28 guidelines

SRs found insufficient evidence for screening for depression, anxiety and substance use disorders

guidelines mostly recommend screening of people with risk factors or specific diseases

RQ 2: Screening methods and their characteristics

The literature describes four methods for mental illness detection: identifying at-risk individuals and using screening questionnaires, using a brief screener, followed by a more comprehensive screening questionnaire for concerning responses, using screening questionnaires for all patients, or testing biological markers. Risk factors include personal and hereditary factors, lifestyle and pre-existing health risks, drug and alcohol use and early life environment, traumata and stress. Of 101 screening tools identified, 17 met our inclusion criteria, covering depression (8), anxiety disorders (2), both conditions (1), alcohol use (4), general substance use (1), and a combined tool for all conditions (1). Screening instruments vary in their characteristics in terms of length, licensing, sensitivity, and specificity.

RQ 2: various methods to screen for mental illness

17 questionnaires with heterogenous characteristics (length, sensitivity & specificity, etc.)

RQ 3: Implications of screening implementation

Screening programmes must be established as organised systems with clear goals, target groups, and defined steps from invitation to screening, diagnosis and treatment, including appropriate screening tool selection and pathways for positive results. Staff must be trained in patient communication, screening tool application and score calculation. According to Austrian and German data, people with risk factors or mental illnesses are less likely to seek preventive care, and mental health stigma adds further barriers to treatment. Screening in primary care can help hesitant patients to discuss mental health, but time constraints, lack of referral options, and treatment costs can create barriers for both patients and healthcare providers. Implementation costs include personnel, screening tests, diagnostics, treatment, infrastructure development, staff training, and quality assurance.

RQ 3:
screening as organised system, not just screening test

important aspects:
definition of all screening steps, staff training, barriers & stigma, resources for increasing demand for therapy, …

Discussion

Systematic reviews on depression screening reached contradictory conclusions, with the US Preventive Services Task Force (USPSTF) finding sufficient evidence for effectiveness, while other reviews viewed evidence as insufficient. The reason might be different inclusion criteria for primary studies in the reviews. For example, contrary to the USPSTF-Review, another review only included studies if randomisation occurred before screening, previously diagnosed patients were excluded, and equal treatment options for screened and unscreened patients were available. Despite limited evidence of effectiveness, most guidelines recommended screening for depression and anxiety disorders, particularly for risk groups, while substance use guidelines advocated for population-wide screening.

different conclusions of SRs due to heterogenous inclusion criteria

most guidelines recommend screening despite limited evidence of effectiveness

Electronic questionnaires might potentially help with barriers like time constraints and provider discomfort. Primary care might be well-suited for mental health screening due to the strong connection between physical and mental problems, though other settings could also be considered. Of Wilson and Jungner's screening criteria, only three currently apply to mental health screening: it addresses an important health problem, appropriate screening tests exist, and suitable treatment options are available. However, the natural course of mental illnesses is not fully understood, making it difficult to time screenings effectively, and stigma remains a significant barrier to acceptance. Further, mental health treatment facilities in Austria show regional differences and often involve long waiting times due to limited publicly funded services. Potential screening harms include unnecessary diagnostic tests, longer waiting times, delayed diagnoses, and overdiagnosis/overtreatment. Given limited healthcare resources, alternative strategies might be more effective to reduce the burden of mental illness, such as reducing stigma, improving healthcare provider education, expanding care services, and facilitating easier access to mental health treatment.

only three of ten screening criteria currently fulfilled

to be considered:
stigma as significant barrier, potential screening harms, regional disparities and limited publicly funded treatment services

Conclusion

This report gives an overview of evidence from systematic reviews, guideline recommendations, and screening methods for the most common mental illnesses: depression, anxiety disorders, and substance use disorders. Despite available screening tools and effective treatment, direct evidence that screening brings more benefits than harm is lacking. Further, most guideline recommendations refer to risk populations. In case of implementing a screening programme for mental illness, various factors must be considered, such as the target group and the screening path, including diagnostics and therapy, planning education and training, as well as financing, and ensuring access for all those affected. The introduction of a screening programme should be carefully weighed against other alternatives for the timely treatment of mental illness (e.g. sufficient publicly funded treatment options, de-stigmatisation).

screening tools and treatment options available, but direct evidence for effectiveness of screening lacking; various factors to be considered in case of screening implementation; screening to be weighed against alternatives to reduce the burden of mental illness

Zusammenfassung

Hintergrund und Ziele des Berichts

ca. jede 5. Person in Ö jährlich von psychischer Erkrankung betroffen

In Österreich ist jährlich etwa jede fünfte erwachsene Person von einer psychischen Erkrankung betroffen. Am häufigsten sind Depressionen (ca. 10 %), Angststörungen (ca. 7 %) und Substanzmissbrauchsstörungen (ca. 12 %). Die Prävalenz ist höher bei Personen mit niedrigerem sozioökonomischem Status und bei Vorhandensein körperlicher Erkrankungen.

Screening z. B. mittels Fragebögen als Möglichkeit betroffene Personen zu identifizieren

Abwägen von Nutzen und potentiellen Schäden

Primärversorgung als mögliches Setting für Screening

Screening ist ein Prozess, um Personen zu identifizieren, die an einer bestimmten Erkrankung leiden, es jedoch noch nicht wissen, oder die ein erhöhtes Erkrankungsrisiko haben. Screening ist als System und nicht nur als einzelner Test zu verstehen. Da Screening auch Schäden mit sich bringen kann (z. B. Verunsicherung und unnötige Untersuchungen bei falsch-positiven Ergebnissen), müssen Nutzen und Schaden vor Einführung von Screeningprogrammen abgewogen werden. Screening auf psychische Erkrankungen erfolgt v. a. mithilfe von Fragebögen. Im Rahmen der 2019 erarbeiteten Empfehlungen zur Überarbeitung der Vorsorgeuntersuchung wurde erstmals die Aufnahme eines Screenings auf Depression evaluiert, jedoch u. a. aufgrund mangelnder Evidenz abgelehnt. Ein Screening auf Alkohol- und Tabakkonsum ist bereits enthalten. Abgesehen von der Vorsorgeuntersuchung könnte sich die Primärversorgung, als erste Anlaufstelle für viele Patient*innen, für ein Screening auf psychische Erkrankungen eignen.

Ziel: systematische Aufbereitung der Evidenz zu drei häufigsten psych. Erkrankungen, Screening-Tools, Implikationen einer Implementierung

Ziel dieses Berichts ist es, die Evidenz eines Screenings der drei häufigsten psychischen Erkrankungen (Depressionen, Angststörungen, Substanzmissbrauchsstörungen) sowie Leitlinienempfehlungen zu diesem Thema systematisch aufzubereiten (erste Forschungsfrage, FF1). Zusätzlich werden Screeningmethoden und deren Charakteristika beschrieben (FF2) und anschließend Implikationen einer potentiellen Implementierung eines Screeningprogramms aufbereitet (FF3).

Methoden

systematische Suche nach HTA-Berichten, SRs und Leitlinien & Handsuche

verblindete Literaturauswahl, Datenextraktion, Qualitätsbewertung mittels ROBIS & AGREE-II

Für die erste Fragestellung wurde eine systematische Suche nach HTA-Berichten, systematischen Reviews (SR) und evidenzbasierten Leitlinien in fünf Datenbanken durchgeführt. Zusätzlich wurden Handsuchen nach Leitlinien in den Datenbanken G-I-N und TRIP und auf Webseiten von Leitlinienorganisationen durchgeführt. Die Literaturauswahl erfolgte verblindet durch zwei Autorinnen. Die Datenextraktionen wurden jeweils durch eine Autorin durchgeführt und durch eine zweite kontrolliert. Die Qualitätsbewertung erfolgte anhand von ROBIS für SRs und AGREE-II für Leitlinien. Für die zweite und dritte Forschungsfrage wurde die bereits identifizierte Literatur verwendet und bei Bedarf zusätzliche Handsuchen durchgeführt. Das Projektprotokoll und die Suchstrategien wurden auf der Website des Open Science Frameworks (OSF) hochgeladen.

FF1: Aufbereitung der Evidenz aus SRs & HTA-Berichten sowie Leitlinien-Empfehlungen; FF2: Übersicht zu Screening-Tools und deren Charakteristika

Für die erste Forschungsfrage wurde die Evidenz aus SRs und HTA-Berichten sowie die Leitlinien-Empfehlungen zum Screening auf psychische Erkrankungen in Tabellen aufbereitet und u. a. Informationen zur Zielgruppe, Empfehlungsgrad, Screeningmethode und -intervall extrahiert und narrativ zusammengefasst. Für die zweite Forschungsfrage wurden Informationen zu den in den SRs und Leitlinien genannten Screeningtools aufbereitet. Dazu wurden die Charakteristika der Screeninginstrumente und ihre Sensitivität

und Spezifität aus SRs und Meta-Analysen ergänzt und narrativ beschrieben. Für die dritte Forschungsfrage wurden relevante Aspekte der organisatorischen Domäne des EUnetHTA Core Models, wie z. B. Struktur der Gesundheitsversorgung, prozessbezogene Kosten und Kultur, herausgegriffen und auf Basis der identifizierten Literatur narrativ beantwortet.

FF3: organisatorische Aspekte des EUnetHTA Core Models

Ergebnisse

FF1: Evidenz zum Screening und Leitlinienempfehlungen

Es wurden neun systematische Reviews (SR) und 28 Leitlinien für die erste Forschungsfrage inkludiert.

9 SRs, 28 Leitlinien

Fünf SRs, drei mit niedrigem Verzerrungsrisiko (Risk of Bias, RoB), einem mit unklarem RoB und einem mit hohem RoB, waren zum **Screening auf Depressionen**. Von insgesamt 26 eingeschlossenen Primärstudien waren 22 jeweils in nur einem Review eingeschlossen. Es gab keine Gruppendifferenz zwischen gescreenten und ungescreenten Gruppen bezüglich Mortalität und gemischte Ergebnisse zu Morbidität (Depressionsausmaß und Symptome). Zudem gab es weder Hinweise auf erhöhte Schäden noch auf Unterschiede bei gesundheitsbezogener Lebensqualität und keine Evidenz zum allgemeinen und sozialen Funktionsniveau. Vier SRs bewerteten die derzeitige Evidenz als unzureichend. Von 19 inkludierten Leitlinien waren sechs zur Allgemeinbevölkerung und 13 zu spezifischen Erkrankungen. Fünf Leitlinien zur Allgemeinbevölkerung empfahlen ein Screening, wobei drei bestimmte Risikofaktoren definierten. Alle 13 Leitlinien zu spezifischen Erkrankungen sprachen sich für ein Screening aus, z. B. im Rahmen der jeweiligen Diagnostik.

Screening auf Depression: 5 SRs und 19 Leitlinien

unzureichende Evidenz für ein Screening laut 4 der 5 SRs

Leitlinien empfehlen überwiegend Screening bei Personen mit Risikofaktoren bzw. spezifischen Erkrankungen

Zwei SR mit niedrigem RoB waren zum **Screening auf Angststörungen**, wobei sich ein SR auf das Screening jugendlicher Mädchen und Frauen bezog, ohne relevante Studien zu identifizieren. Der SR zur Allgemeinbevölkerung schloss zwei RCTs zur Effektivität eines Screenings ein; ohne Gruppendifferenz der Angstsymptome. Beide SRs kamen zum Schluss, dass die Evidenz für ein Screening auf Angststörungen derzeit unzureichend ist, es aber valide Tests und effektive Behandlungsmöglichkeiten gibt. Dazu wurden 13 Leitlinien, drei zur Allgemeinbevölkerung und zehn zu spezifischen Erkrankungen, identifiziert. Zwei Leitlinien empfahlen ein Screening der Allgemeinbevölkerung, während die dritte das Screenen von Personen mit Risikofaktoren empfahl. Alle zehn Leitlinien zu spezifischen Erkrankungen sprachen sich für ein Screening auf Angststörungen aus.

Screening auf Angststörungen: 2 SRs und 13 Leitlinien

unzureichende Evidenz für ein Screening

Leitlinien empfehlen Screening der Allgemeinbevölkerung bzw. bei Personen mit Risikofaktoren

Zwei SRs mit niedrigem RoB, einer zum **Screening auf Alkoholkonsum** und einer zum **Drogenkonsum** konnten keine Studien zur Effektivität eines Screenings identifizieren, kommen jedoch zum Schluss, dass in beiden Fällen valide Screeningtools und effektive Behandlungen existieren. Zudem empfahlen alle acht Leitlinien zum Alkoholmissbrauch ein Screening, wobei sich eine Leitlinie auf Patient*innen mit Diabetes bezog und die restlichen auf die Allgemeinbevölkerung. Drei Leitlinien sprachen sich für das Screening auf **Tabakmissbrauch** in der Allgemeinbevölkerung aus und zwei Leitlinien empfahlen ein Screening auf Drogenmissbrauch, eine in der Allgemeinbevölkerung und eine bei sozial benachteiligten Personen. Für ein Screening auf Medikamentenmissbrauch gibt es laut einer Leitlinie kein geeignetes Tool.

Screening auf Substanmissbrauch: 2 SRs und 11 Leitlinien

keine Studien zur Effektivität des Screenings auf Alkohol- und Drogenkonsum identifiziert, Leitlinien empfehlen Screening

FF2: Screening-Methoden und ihre Merkmale

4 Methoden für Erkennung psychischer Erkrankungen: Fragen, Identifizieren von Risikofaktoren, Screening-Fragebögen, Testen biologischer Marker

In der inkludierten Literatur werden vier Screeningoptionen für psychische Erkrankungen beschrieben:

1. Identifizierung von Risikopersonen und anschließende Verwendung von Screening-Fragebögen.
2. Stellen einer kurzen Frage nach dem psychischen Befinden und Verwendung von Screening-Fragebögen bei auffälligen Antworten.
3. Verwendung von Screening-Fragebögen bei allen Patient*innen.
4. Testen von biologischen Markern.

bestimmte Risikofaktoren können zur Identifizierung von Risikopersonen verwendet werden

Risikofaktoren, die zur Identifizierung von Risikopersonen herangezogen werden könnten, lassen sich in folgende Kategorien einteilen: persönliche und erbliche Faktoren (z. B. psychische Erkrankungen in der Familiengeschichte), Lebensstil und bestehende Gesundheitsrisiken (z. B. chronische, somatische und psychiatrische Komorbiditäten), Drogen- und Alkoholmissbrauch (z. B. Konsum von Stimulanzien von Personen in der näheren Umgebung) sowie frühes Lebensumfeld, Traumata und Stress (z. B. aktuelle oder frühere belastende Lebensereignisse).

17 Fragebögen erfüllten Einschlusskriterien; Parameter der Screening-Instrumente variieren, z. B. Länge, Dauer oder Sensitivität und Spezifität

Von 101 identifizierten Screening-Instrumenten erfüllten 17 die Einschlusskriterien. Diese umfassten Tests zum Screening auf Depression (8), Angststörungen (2), beide Erkrankungen (1), Alkoholmissbrauch (4), allgemeinen Substanzmissbrauch (1) und ein kombiniertes Instrument für alle Erkrankungen (1). Die Fragebögen unterscheiden sich u. a. in der Itemanzahl, der benötigten Zeit, der Lizenzierung, der Sensitivität und der Spezifität.

FF3: Implikationen einer Implementierung eines Screeningprogramms

Screening als organisiertes System: Definition von Zielen und Zielgruppen sowie aller Screeningschritte, Aufbau von Kommunikationskanälen, Wahl eines geeigneten Screeningtests

Ein Screening muss als organisiertes System aufgesetzt werden. Hierzu müssen zuerst Programmziele, Zielgruppe, sowie alle Screeningschritte definiert, Personalschulungen geplant, sowie Kommunikationskanäle etabliert werden. Ein Screening der Allgemeinbevölkerung (vgl. Vorsorgeuntersuchung), oder von Personen mit Risikofaktoren ist möglich. Je nach Zielpopulation gibt es verschiedene Möglichkeiten, Personen zum Screening einzuladen. Für ein optimales Screeningintervall fehlt zurzeit die Evidenz. Alle Schritte des Screeningprozesses von Einladung, Screening, bis zu Diagnostik und Behandlung, sollen im Detail beschrieben werden. Wichtig ist zudem die Wahl eines Screeningtests. Dabei müssen, u.a. die Itemanzahl, benötigte Dauer, Administrationsart und Ergebnisberechnung berücksichtigt werden. Auch die Festlegung eines Schwellenwertes ist wichtig, da dieser die Anzahl der positiv und negativ gescreenten Personen beeinflusst.

Schulungen des Gesundheitspersonals, Aufbau von Kooperationen, Vorbereitung von Informationsmaterialien, Qualitätssicherung

Für ein qualitativ hochwertiges Screening muss es zudem Schulungen des zuständigen Gesundheitspersonals geben. Diese müssen u. a. Patient*innengespräche über psychische Erkrankungen, Formulierungen der Screeningfragen, sowie Umgang mit uneindeutigen Ergebnissen beinhalten. Es müssen außerdem Kooperationen und Arbeitsaufteilungen innerhalb der Praxis, und zwischen verschiedenen Leistungserbringer*innen aufgebaut, sowie Informationsmaterialien für unterschiedliche Zielgruppen vorbereitet werden. Zur Qualitätssicherung des Screeningprogramms müssen Mindeststandards für jeden Screeningschritt gesetzt werden.

niederschwelliger Zugang zur Versorgung wichtig

Adressierung von Barrieren, z. B. Stigma, Unsicherheiten beim Ansprechen psychischer Probleme, fehlende (kostenfreie) Therapiemöglichkeiten, Zeitmangel, …

Daten aus Österreich und Deutschland zeigen, dass Personen mit Risikofaktoren bzw. mit psychischen Erkrankungen weniger wahrscheinlich regelmäßig an der Vorsorgeuntersuchung teilnehmen und ca. 60 % der Personen mit psychischen Erkrankungen keine Hilfe in Anspruch nehmen. Implementierungsansätze sollten demnach einen niederschwelligen Zugang zur Versorgung sicherstellen, durch z. B. kulturell angepasste Angebote, flexible Öffnungszeiten sowie verschiedene Kommunikationsmethoden. Ein Screening in der Primärversorgung kann für Patient*innen, die sich nicht trauen, psychische Probleme anzusprechen, eine erste Anlaufstelle sein. Jedoch können private Behandlungskosten, die im Zusammenhang mit einer psychischen Erkrankung häufig anfallen (z. B. Psychotherapiekosten), eine Barriere für Patient*innen sein. Aus Sicht der Gesundheitsberufe kann das Ansprechen psychischer Probleme mit Unsicherheit und Unbehagen verbunden sein. Ebenso können fehlende Überweisungsmöglichkeiten, Zeitmangel und erhöhter Arbeitsaufwand Barrieren darstellen.

Kosten durch Implementierung eines Screeningprogramms, z. B. für Personal, Ausbau der Infrastruktur, Entwicklung von Versorgungspfaden, Personalschulungen, …

Bei der Implementierung eines Screeningprogramms entstehen unterschiedliche Kosten, wie z. B. Personalkosten bei der Durchführung des Screenings, sowie bei der diagnostischen Abklärung und Behandlung. Zusätzlich sind Ressourcen zum Ausbau der Infrastruktur nötig, da der Bedarf an Therapie durch ein Screening steigen wird. Anfängliche Kosten fallen auch bei der Implementierung durch die Entwicklung von Versorgungspfaden, Schulungen des Personals, Aufsetzen von Kommunikationsstrategien und von Systemen zur Qualitätssicherung an. Zur Einschätzung des Budgetbedarfs müssen benötigte Mengen und Preise für jeden Schritt berechnet werden, wobei die Mengen von der gewählten Zielpopulation abhängig sind.

Diskussion

teils widersprüchliche Schlussfolgerungen der SRs zu Depressionsscreening, aufgrund heterogener Einschlusskriterien

Übertragbarkeit mancher Studien auf österreichischen Kontext eingeschränkt

Die Schlussfolgerungen der SRs zum Screening auf Depressionen waren teils widersprüchlich. Der SR der US Preventive Services Task Force (USPSTF) fand ausreichend Evidenz zur Wirksamkeit eines Screenings, welches daraufhin von der zugehörigen Leitlinie empfohlen wurde. Die anderen SRs kamen zum Schluss, dass es keine ausreichenden Belege für die Wirksamkeit gibt. Ein Grund für die widersprüchlichen Ergebnisse scheinen die unterschiedlichen Einschlusskriterien für Primärstudien zu sein. Ein SR definierte etwa die Randomisierung der Patient*innen vor dem Screening, Ausschluss von Personen mit bereits diagnostizierter psychischer Erkrankung, sowie gleiche Behandlungsoptionen für gescreente und ungescreente Patient*innen als wesentliche Einschlusskriterien. Die Studien im SR der USPSTF erfüllen diese strengen Kriterien nicht, was zu einer anderen Schlussfolgerung hinsichtlich Wirksamkeit eines Screenings führte. Der deutsche HTA-Bericht des Instituts für Qualität und Wirtschaftlichkeit im Gesundheitswesen inkludierte nur Primärstudien, die die gesamte Screeningkette evaluierten, wobei auch prospektiv geplante nicht-randomisierte Studien mit zeitlich paralleler Kontrollgruppe eingeschlossen wurden. Da diese jedoch überwiegend in Japan durchgeführt wurden, ist die Übertragbarkeit der Ergebnisse auf Deutschland bzw. Österreich eingeschränkt.

Leitlinien empfehlen überwiegend Screenings, v. a. bezogen auf Risikogruppen, trotz unzureichender Evidenz

Obwohl die eingeschlossenen SRs nur unzureichende Evidenz zur Wirksamkeit von Screenings auf psychische Erkrankungen (Depressionen, Angststörungen, Substanzmissbrauchsstörungen) identifizierten, empfahlen die meisten Leitlinien ein Screening auf Depression und Angststörungen, v. a. bezogen auf Risikogruppen. Nur Leitlinien zum Substanzmissbrauch sprachen sich für ein Populationsscreening aus. Die Argumentationen der Leitlinien für ein

Screening von Risikogruppen trotz mangelnder Evidenz bezogen sich v. a. auf hohe Prävalenzen und schlechtere Behandlungsergebnisse bei komorbiden psychischen Erkrankungen.

meist Screeningfragebögen, z. B. zum Selbstausfüllen oder elektronisch

Als Screeningmethode wurden Screeningfragebögen am häufigsten erwähnt, außer beim Substanzmissbrauch, wo häufig empfohlen wurde, nach dem Konsum zu fragen. Selbstauszufüllende Screeningfragebögen könnten Barrieren wie Zeitdruck und Unbehagen des Gesundheitspersonals, Fragen zu psychischen Erkrankungen zu stellen, umgehen. Elektronische Fragebögen zum Ausfüllen im Wartezimmer oder zu Hause könnten zu einer schnelleren Analyse der Ergebnisse führen und eine einfachere Eingliederung in die elektronische Patient*innenakte ermöglichen.

Primärversorgung als geeignetes Setting, z. B. Vorsorgeuntersuchung

Screening auf Alkohol- und Tabakkonsum bereits enthalten, Screening auf Depression 2019 nicht empfohlen

Die Primärversorgung ist aufgrund des Zusammenhangs von physischen und psychischen Problemen theoretisch gut für ein Screening auf psychische Erkrankungen geeignet. Andere Settings, wie z. B. ein Screening an Schulen, oder am Arbeitsplatz, könnten jedoch ebenfalls in Frage kommen. In der Primärversorgung ist ein potentielles Setting für das Screening die Vorsorgeuntersuchung. Ein Screening auf Alkohol- und Tabakkonsum ist bereits in der Vorsorgeuntersuchung vorhanden. Es ist jedoch nicht klar, ob das Screening standardisiert durchgeführt wird. Ein Screening auf Depression in der Vorsorgeuntersuchung wurde dagegen im Jahr 2019, unter anderem aufgrund der Sorge vor der Überverschreibung von Psychopharmaka nicht empfohlen.

Screening auf psych. Erkrankungen erfüllt derzeit nur drei von 10 Screeningkriterien: wichtiges Gesundheitsproblem, geeignete Screeningtests und Behandlungsoptionen

Derzeit erfüllt ein Screening auf psychische Erkrankungen nur drei der zehn Screening-Kriterien von Wilson und Jungner: psychische Erkrankungen sind ein wichtiges Gesundheitsproblem, es gibt passende Screening-Tests und geeignete Behandlungsmöglichkeiten. Im Gegensatz dazu ist der natürliche Verlauf psychischer Erkrankungen, sowie ihre Entwicklung und Stadien noch nicht vollständig geklärt. Es ist daher schwierig Menschen genau dann mit einem Screening zu erreichen, wenn eine rechtzeitige Behandlung am wichtigsten wäre. Außerdem ist die Akzeptanz der Patient*innen unklar, da psychische Erkrankungen immer noch mit Stigma behaftet sind. Zusätzlich weisen Einrichtungen zur Behandlung psychischer Erkrankungen in Österreich oft große regionale Unterschiede auf und bringen durch begrenzte öffentlich finanzierte Angebote lange Wartezeiten mit sich.

sorgfältige Abwägung potentieller Schäden

z. B. unnötige Tests und längere Wartezeiten, Überdiagnostik/-therapie

alternative Strategien evt. besseres Nutzen-Risiko-Verhältnis bei geringeren Kosten

Da Screening auch Schaden bringen kann, sollte eine mögliche Einführung eines Screening-Programms sorgfältig abgewogen werden. Mögliche Schäden eines Screenings auf psychische Erkrankungen umfassen u.a. unnötige Tests und längere Wartezeiten auf Diagnostik und Therapie bei hoher Anzahl falsch-positiver Ergebnisse, verspätete Diagnosen bei Personen mit falsch-negativen Ergebnissen, sowie Überdiagnostik und -therapie (z. B. Verschreibung von Antidepressiva bei Personen mit leichten Depressionen). Es sollte geprüft werden, ob andere Strategien womöglich ein besseres Nutzen-Risiko-Verhältnis bei geringeren Kosten aufweisen. Alternative Strategien umfassen z. B. Maßnahmen zur Verringerung der Stigmatisierung, Weiterbildung des Gesundheitspersonals, Ausbau der Versorgung, sowie Erleichterung des Zugangs zur Behandlung von psychischen Erkrankungen.

Fazit

Dieser Bericht dient als Überblick zur Evidenz, Empfehlungen und Methoden zum Screening für Depression, Angststörungen und Substanzmissbrauch. Trotz Vorhandensein von geeigneten Screeningfragebögen mangelt es derzeit an direkter Evidenz, dass ein Screening mehr Nutzen als Schaden bringt. Zusätzlich bezieht sich der Großteil der Leitlinienempfehlungen auf Risikopopulationen. Im Falle einer Implementierung eines Screeningprogramms für psychische Erkrankungen müssen unterschiedliche Faktoren berücksichtigt werden, z. B. Definition der Zielgruppe und des gesamten Screeningpfads, inklusive Diagnostik und Therapie, Planung von Aus- und Weiterbildungen sowie Finanzierung und Sicherung des Zugangs für alle Betroffenen. Die Einführung eines Screening-Programms sollte sorgfältig mit anderen Alternativen zur rechtzeitigen Behandlung von psychischen Erkrankungen (z. B. ausreichend öffentlich finanzierte Behandlungsmöglichkeiten, De-Stigmatisierung) abgewogen werden.

Mangel an direkter Evidenz für Nutzen des Screenings, Leitlinien empfehlen meist Screening von Risikogruppen

Berücksichtigung zahlreicher Faktoren bei Implementierung nötig

Abwägung mit Alternativen zum Screening empfohlen

1 Introduction

1.1 Mental health/illness

Mental disorders are defined as notable disruptions in a person's thinking, emotional control or behaviour, indicating underlying dysfunctions in psychological, biological, or developmental processes that govern mental and behavioural functions. Further, mental disorders are usually linked to considerable distress or impairment in various areas of an individual's functioning [1, 2]. The presence of distress and/or impairment is a key criterion for diagnosis since the boundaries between normality and mental disorders don't have a definite biological threshold and are often subject to current societal values or cultural norms [3, 4].

psychische Erkrankungen: Veränderungen des Denkens, Fühlens und/oder Verhaltens mit ausgeprägten Leidensdruck oder Beeinträchtigungen im täglichen Leben

In 2019, mental disorders were the seventh leading cause of disability-adjusted life years (DALYs) and the second leading cause for years lived with disability (YLDs), with around one in eight people suffering from at least one mental disorder worldwide [5]. The most frequent disorders were depression and anxiety disorders, with a worldwide prevalence of around 5% each. Furthermore, around 3% of people were suffering from drug and alcohol use disorders [6]. However, evidence suggests that the prevalence of mental disorders increased further during the recent COVID-19 pandemic, even doubling in some countries [7]. The most recent data from the Global Burden of Disease Study suggests a prevalence of mental disorders of 14% in 2021 [8].

Depression und Angststörungen: die häufigsten psychischen Erkrankungen mit jeweils ca. 5 % weltweiter Prävalenz

In Austria, data indicates that around one in five people suffer from at least one mental disorder. While the Institute of Health Metrics and Evaluation (IHME) estimated the prevalence to be around 18% in 2019 [9], a representative survey of people aged between 18 and 65 years (n=1.008) from 2016 estimated the one-year prevalence of mental disorders at 23% [10]. As with the global prevalence data, the most frequent disorders were depressive disorders, with a one-year prevalence of around 10%, followed by anxiety disorders, with a one-year prevalence of around 7%. In addition, the authors provided the one-year prevalence of substance use disorders without tobacco, which was 5% and the one-year prevalence of tobacco use, which was around 7% [10].

jede 5. Person leidet an psychischen Erkrankungen in Österreich pro Jahr

am häufigsten: Depressionen, Angststörungen und Substanzmissbrauch

While mental disorders in general were more prevalent in women, this was especially the case with depressive disorders. In contrast, substance use disorders and addiction were more prevalent in men. Prevalences were further higher among people in a lower social class, those with higher education, those with financial worries and people caring for sick family members. Of the people suffering from a mental disorder, 86% had a physical illness [10].

Prävalenzen oftmals höher z. B. bei niedrigerem sozioökonomischem Status und bei bestehenden körperlichen Erkrankungen

1.1.1 Diagnosis and classification

The current definition of mental disorders stems from the two widely used systems of defining, classifying and describing mental disorders [11]: the international classification of diseases (ICD), available in its 11th version since January 2022 and developed by the World Health Organisation (WHO), and the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) published by the American Psychiatric Association (APA) in 2013. The ICD also provides the "Clinical Description and Diagnostic Guidelines

zwei Systeme zur Klassifikation von psychischen Erkrankungen: ICD-11 und DSM-5

(CDDG)", which are intended to guide clinicians in diagnosing mental disorders [12]. The focus of ICD is global application and utility in clinical practice, and it is used by the majority of clinicians worldwide, while the DSM system is more often applied in research [11, 12].

ICD-11: psychische Erkrankungen im 6. Kapitel in 23 Kategorien

Since the new editions, the classification of mental disorders in ICD-11 and DSM-5 follows largely a similar meta-structure, with the ICD-11 listing 23 different categories of mental disorders, which are situated in the 6th chapter, while the DSM-5 lists 22 different disorder categories [13]. Table 1-1 lists all 23 categories of mental disorders from ICD-11, highlighting the most prevalent categories in bold. Following, the most prevalent disorder categories, depression, anxiety and substance use disorders, will be described in more detail.

Table 1-1: Categories of mental disorders according to ICD-11

	ICD-11 Mental, behavioural and neurodevelopmental disorders
1	Neurodevelopmental disorders
2	Schizophrenia and other primary psychotic disorders
3	Catatonia
4	**Mood disorders**
5	**Anxiety and fear-related disorders**
6	Obsessive-compulsive or related disorders
7	Disorders specifically associated with stress
8	Dissociative disorders
9	Feeding and eating disorders
10	Elimination disorders
11	Disorders of bodily distress and bodily experience
12	**Disorders due to substance use and addictive behaviours**
13	Impulse control disorders
14	Disruptive behaviour and dissocial disorders
15	Personality disorders and related traits
16	Paraphilic disorders
17	Factitious disorders
18	Neurocognitive disorders
19	Mental or behavioural disorders associated with pregnancy, childbirth and the puerperium
20	Psychological and behavioural factors affecting disorders or diseases classified elsewhere
21	Secondary mental or behavioural syndromes associated with disorders or diseases classified elsewhere
22	Other specified mental, behavioural or neurodevelopmental disorders
23	Mental, behavioural or neurodevelopmental disorders, unspecified

Note: Most prevalent disorders are in **bold**

1.1.2 Anxiety or fear-related disorders

Definition Angststörungen:

Anxiety disorders were formerly situated in the F4 "Neurotic, stress-related and somatoform disorders" chapter of the ICD-10 and received their own chapter "Anxiety or fear-related disorders" in the ICD-11 [13]. Anxiety disorders are characterised by extreme fear or anxiety that result in behavioural disturbances and distress to the individual. For diagnosis, the symptoms must be present for most of the time over the course of several months. Generally, afflicted individuals avoid situations in which they might encounter the object of their anxiety. Different anxiety disorders are recognised by their distinct triggers. The anxiety disorders included in ICD-11 constitute [1]:

extreme Angst für die meiste Zeit über mehrere Monate; Einteilung der Störungen nach Auslöser

z. B. generalisierte Angststörung, Panikstörung, spezifische Phobien, soziale Angststörung, …

- **Generalised anxiety disorder (GAD):** General apprehension or excessive worry that is focused on everyday events.
- **Panic disorder**: Recurrent unexpected panic attacks and fear of future attacks, not bound to specific stimuli.
- **Agoraphobia:** Fear in/of situations in which the ability to escape or to get help is not available, e.g., public transportation, big crowds.
- **Specific phobia:** Anxiety of specific objects or situations (e.g., certain animals, flying, heights, closed spaces).
- **Social anxiety disorder:** Anxiety that occurs from social situations such as social interactions (e.g. having a conversation), doing something while feeling observed (e.g. eating or drinking in the presence of others), or performing in front of others (e.g. giving a speech), with the fear of a negative evaluation from others.
- **Separation anxiety disorder:** Anxiety about the separation from specific attachment figures (typically, caregivers in children and adolescents and romantic partners or children in adults).
- **Selective mutism:** Characterised as speaking in certain situations but not others.
- **Hypochondriasis:** Fear about the possibility of having one or more serious, progressive or life-threatening illnesses, accompanied by excessive health-related behaviours or maladaptive avoidance of these behaviours.

1.1.3 Depression/Mood disorders

Definition Depression: trübe Stimmung, Interessens- und Motivationsverlust mit somatischen Symptomen (z. B. Schlafstörungen) über längere Zeit

Depressive disorders contribute the most to the global burden of disease [12] and are characterised by prolonged low mood, loss of interest and motivation, together with different somatic symptoms, such as difficulties falling asleep or tiredness, loss of, as well as increased appetite. People with depression may additionally suffer from low self-esteem, rumination, and difficulties concentrating and managing daily tasks [14]. A variety of factors are associated with the aetiology of depression, such as genetics, environmental stresses and the existence of other psychological and physiological comorbidities [15].

Einteilung der Symptome nach affektiv, kognitiv-verhaltensbezogen, neurovegetativ

In the ICD-11, depression is situated under the chapter of mood disorders together with "bipolar or related disorders". Symptoms are ordered in three clusters: affective, cognitive-behavioural and the neurovegetative cluster (CDDG). To diagnose depression with the ICD-11, at least five of ten symptoms must be present during most of the day on most days for at least two

weeks. Of those ten symptoms, at least one of the two symptoms in the affective clusters, "depressed mood" or "diminished interest or pleasure in activities", must be present [12]. Table 1-2 lists all symptoms stated in the ICD-11. Individuals who have experienced manic, hypomanic or mixed symptoms would rather be diagnosed with bipolar disorder.

Table 1-2: Symptoms of depressive episodes according to ICD-11

Depressive episode – Essential features
Affective cluster: ■ Depressed mood as reported by the individual (e.g. feeling down, sad) or as observed (e.g. tearful, defeated appearance) (Note: in children and adolescents, depressed mood can manifest as irritability.) ■ Markedly diminished interest or pleasure in activities, especially those normally found to be enjoyable to the individual (Note: this may include a reduction in sexual desire.)
Cognitive-behavioural cluster: ■ Reduced ability to concentrate and sustain attention on tasks or marked indecisiveness ■ Beliefs of low self-worth or excessive and inappropriate guilt that may be manifestly delusional (Note: this item should not be considered present if guilt or self-reproach is exclusively about being depressed.) ■ Hopelessness about the future ■ Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation (with or without a specific plan), or evidence of attempted suicide
Neurovegetative cluster: ■ Significantly disrupted sleep (delayed sleep onset, increased frequency of waking during the night, or early morning awakening) or excessive sleep ■ Significant change in appetite (diminished or increased) or significant weight change (gain or loss) ■ Psychomotor agitation or retardation (observable by others, not merely subjective feelings of restlessness or being slowed down) ■ Reduced energy, fatigue or marked tiredness following the expenditure of only a minimum of effort

Source: Clinical descriptions and diagnostic requirements for ICD-11 mental, behavioural and neurodevelopmental disorders [1]

1.1.4 Disorders due to substance use or addictive behaviours

Substanzmissbrauch und Verhaltenssüchte

Disorders due to substance use and addictive behaviours are mental and behavioural disorders that develop as a result of the use of predominantly psychoactive substances, including medications, or specific repetitive rewarding and reinforcing behaviours [1].

Substanzmissbrauch: 14 Klassen an psychoaktiven Substanzen; Sucht durch wiederholten Gebrauch

Disorders due to substance use include 14 classes of psychoactive substances (including certain medications) and can occur from a single occasion or repeated use of these substances. These substances typically have a pleasant effect and the capacity to produce dependence with repeated use, which can result in physical as well as mental harm. The 14 psychoactive substances include:

- Alcohol
- Cannabis
- Synthetic Cannabinoids
- Opioids
- Sedatives, Hypnotics or Anxiolytics
- Cocaine
- Stimulants, including Amphetamines, Methamphetamine or Methcathinone
- Synthetic Cathinones
- Caffeine
- Hallucinogens
- Nicotine
- Volatile Inhalants
- MDMA or related drugs, including MDA
- Dissociative drugs, including Ketamine and Phencyclidine (PCP)

Disorders due to addictive behaviours include gambling and, new since ICD-11, gaming disorders. Both can occur online as well as offline. As with substance use disorders, these behaviours are reinforced due to their rewarding nature, resulting in distress or interference of function of the afflicted individual.

Verhaltenssüchte: Glücksspielsucht und Computerspielsucht

1.2 Screening

"Screening" is a process of identifying people who are symptomless or not aware of a present disorder, who may be suffering from the specific condition being screened for in the present or are at a higher risk of developing this condition in the future [16]. The aim of screening is to reduce the risk of developing the condition or to inform the individual of the higher risk of developing a condition and to intervene early in symptomatic individuals to reduce possible morbidity and mortality [17, 18]. For people already suffering from the condition, the aim is to provide further assessments and, subsequently, an intervention if the condition is, in fact, present. Finally, screening refers to a systematic screening programme with integral quality controls and not just to the screening test itself [17].

Screening als Prozess, um Menschen zu identifizieren, die bereits an einer bestimmten Erkrankung leiden, oder ein erhöhtes Risiko haben, an dieser zu erkranken; Screening ist immer als ganzes System zu verstehen

Screening can bring harm to the people not suffering from the screened-for condition by subjecting them to the screening test (e.g., unnecessary interventions due to false-positive results, overdiagnosis and overtreatment) [17, 19]. Therefore, only screening programmes that provide more benefit than harm at a reasonable cost along the whole screening pathway can be recommended [17].

Screening kann auch Schaden verursachen (z. B. falsch-positive Ergebnisse, Überdiagnostik und -behandlung)

In the case of mental disorders, screening can be used to identify people who are not aware of a present mental disorder and are in need of treatment. A variety of validated questionnaires exist for the screening of different mental disorders, which could be used in a primary care setting [20]. They vary in length and scope and whether they are to be answered by a health professional or by the screened individual themselves. For instance, a 2018 systematic review (SR) identified 24 different screening tools for a variety of mental disorders in primary care settings [20]. Eight of these were subscales of the „Patient Health Questionnaire" (PHQ), which can be used to screen for specific mental disorders, such as anxiety disorders (GAD-7) or depressive disorders (PHQ-9).

Screening auf psychische Erkrankungen mithilfe von Fragebögen

Vielzahl an validierten Screening-Tools

Further, the different screening tools vary in their ability to detect people who might be suffering from a mental disorder. The measures that define the accuracy of a screening instrument are sensitivity, specificity, positive predictive value, negative predictive value and ROC curves [17]:

Qualitätskriterien eines Screeninginstruments:

- **Sensitivity** describes how well a test can correctly identify cases (people truly suffering from the tested condition).
- **Specificity** describes how well a test can correctly identify non-cases (people who are not suffering from the tested condition).
- **Positive predictive value** indicates how likely it is that the individual who screened positive actually has the condition.
- **Negative predictive value** indicates how likely it is that the individual who screened negative does not have the condition.
- **Receiver-operator characteristics (ROC) curves** illustrate the sensitivity and specificity of one test for any threshold value.

Sensitivität,

Spezifizität,

positiver/negativer prädiktiver Wert,

ROC-Kurven

Screening ≠ Diagnose

If a screened individual scores above the pre-defined threshold of a specific screening instrument, a complete diagnosis needs to be made to determine whether the person is really suffering from a mental disorder and needs treatment. The screening itself, therefore, is not a diagnosis of a mental disorder. In addition, other methods than screening with a standardised instrument may be used to identify a person with a mental disorder and are considered screening in our context. For example, using known risk factors for a mental disorder to identify people at increased risk before subjecting them to a screening with a formal screening tool.

10 Screening-Prinzipien nach Wilhelm und Jungner, 1968

The so-called screening principles can help to decide whether a specific health problem requires screening. They were first formally introduced by Wilson and Jungner in 1968 [21] and updated in 2018 following an SR and Delphi process [19]. The principles specify that the condition to be screened should be an important health problem with an identifiable preclinical stage and a clearly defined target population. In addition, the screening instrument should be accurate and reliable, acceptable to the target population and cost-effective, and the results should be clearly interpretable. There should also be a defined pathway for people who screen positive, including further diagnosis, treatment or interventions, which should be available, accessible, and acceptable and lead to improved outcomes. There should also be an infrastructure into which screening can be integrated, and its quality should be continually evaluated. Finally, the benefits of screening should outweigh the harms.

3 Optionen für national organisierte Screeningprogramme:

The UK National Screening Committee (UK NSC) proposes three nationally managed screening programmes, separate from routine clinical care in which a person with health concerns is offered tests by a clinician to assess their risk of disease [22]:

- **Population screening:** Screening programmes for which individuals are actively invited and which are delivered on a national level. **Bevölkerungsscreening,**
- **Targeted screening:** In targeted screening, screening is strategically offered to a selected group of people who have a higher risk of developing a condition. **gezieltes Screening,**
- **Stratified screening:** The number and type of screening tests, as well as who is invited to them, are varied based on an individual's risk. **stratifiziertes Screening**

opportunistisches Screening nicht empfohlen

Another form of screening, the so-called "opportunistic screening," in which an individual who is visiting a doctor for a specific test is being offered the screening for another condition, is not recommended, as this approach risks missing groups of people and therefore increases health inequalities.

1.3 Screening for mental disorders in Austria

jährliche österreichische Vorsorgeuntersuchung (VU) frei für jede/n ab dem 18. Lebensjahr mit insgesamt 18 Screening- und Beratungsempfehlungen

The Austrian periodic health examination (*Vorsorgeuntersuchung*) has existed since 1974 and was last reviewed in 2019 [23], although the recommendations from that review process still need to be implemented. Currently, the periodic health examination includes 18 different screening and counselling recommendations [23, 24]. Everyone from the age of 18 has the possibility to participate in the health examination once every year, free of charge. In order to improve the uptake, it is planned that people under the age of 40 years are invited to participate every three years and people over the age of 40 every two years. Additionally, people who did not participate for a longer period will receive an invitation [24].

Erarbeitung von evidenzbasierten Empfehlungen zur VU durch Expert*innen 2019: Depressionsscreening nicht empfohlen

A panel of experts published evidence-based recommendations for the revised periodic health examination in 2019. Screening for depression was evaluated for the first time. Yet, it was not recommended by the expert panel due to the length of the screening instrument (PHQ-9), lack of other screening tests, limited treatment possibilities for people with mild depression and the fear of overprescribing of psychotropic drugs (weak recommendation against, low quality of evidence). Further, there was the concern that because of the high prevalence of depression in Austria, many of the screened people would only be needlessly worried and stigmatised due to the diagnosis without having sufficient treatment options available. Nevertheless, doctors are advised to address the mental health of their patients [23].

Screening für Alkohol-, Tabak- und Medikamentenkonsum bereits in der VU enthalten

In comparison, screening for alcohol consumption, smoking and use of medication has already been part of the Austrian periodic health examination. For nicotine consumption, a short consultation based on the "5 A's" model [25] is recommended. To assess risky alcohol consumption, the AUDIT questionnaire [26] is used, which consists of ten questions with five possible answers each. Regarding medication use, it is asked whether pain, sedative or sleep medication has been used during the last two weeks [27]. No other mental disorders were evaluated for inclusion in the Austrian periodic health examination.

ca. 40 % der Österreicher*innen nehmen durchschnittlich alle 3 Jahre an VU teil

According to the Website of the Austrian Social Insurance (*Österreichische Sozialversicherung*, SV), around 12% of Austrians claim the offer of the Austrian periodic health examination yearly and on average every three years, which adds up to around 40% of the Austrian population taking part [28, 29]. Wancata, 2017 reports that 40% of participants claimed the periodic health examination in 2016, with women participating a bit more often than men (37% vs. 42%). In their study, the participation rate for people without mental disorders was a bit higher (41%) than for people with mental disorders (35%), although the difference was not significant [10].

Teilnahmerate bei Personen ohne psych. Erkrankung etwas höher als mit psych. Erkrankung

Screening auf psychische Erkrankungen in der Primärversorgung auch abseits der VU möglich

starker Zusammenhang zwischen körperlichen Krankheiten und psychischen Problemen

Screening for mental health disorders by primary care clinicians might be beneficial apart from the context of the periodic health examination. Patients with certain physical symptoms visiting primary care clinicians might, in fact, be suffering from a mental health issue without recognising it. Additionally, there is a strong association between physical diseases and mental health issues [10]. Therefore, recognition, first treatment and referral to other providers by a primary care clinician seems practical. Still, a high proportion of patients with mental health issues go unrecognised in primary care. Establishing a structured screening programme might, therefore, increase recognition of patients needing a proper assessment and, as a result, lead to an earlier intervention and better treatment outcomes in patients suffering from mental health issues.

1.4 Research questions

Projektziel: Aufbereitung der Evidenz zu Screening auf psychische Erkrankungen, Methoden und Implementierung

Considering the information outlined above, this project aims to provide information on the current evidence and recommendations regarding screening for the three most frequent mental health problems in the primary care setting. Further, it seeks to provide an overview of various screening instruments and methods and to highlight important topics that need to be addressed when implementing screening for mental health problems in primary care.

3 Forschungsfragen (FF)

The following research questions will be addressed:

RQ1 What is the evidence on the benefits and potential harms of screening for the considered mental disorders (depression, anxiety, and addiction) in adults in primary health care, e.g. in terms of identification and subsequent treatment, earlier recovery, quality of life? What are the recommendations of recent evidence-based guidelines?

FF1: Evidenz und Empfehlungen zum Screening auf psychische Erkrankungen in der Primärversorgung

RQ2 What screening methods can be used (e.g., specific screening instruments, identification of risk factors/comorbidities), and what are their characteristics (e.g. test quality, length)?

FF2: Screeningmethoden und Instrumente

RQ3 What are the implications of implementing screening, and what evidence does the literature provide regarding the capacity required for the different screening steps (e.g. diagnosis and therapy)?

FF3: Implikationen einer Implementierung eines Screeningprogramms

2 Methods

The following methods were applied to answer the three research questions mentioned above:

2.1 Literature search

systematische Suche in 5 Datenbanken

A systematic literature search was conducted between the 14th and 17th of June 2024 in the following electronic databases:

- Medline via Ovid
- Embase
- The Cochrane Library
- PsycINFO
- INAHTA Database

Projektprotokoll und Suchstrategien auf OSF

The Medline search strategy is given as an example in the Appendix. The search strategies for the other databases are available in the OSF database, where the protocol of this project was registered in June 2024 (https://osf.io/rwk34/) or from the authors on request. The systematic search was limited to systematic reviews (SR), Health Technology Assessment (HTA) reports and guidelines that were published in English or German. The last ten years were considered.

Suche nach HTA-Berichten, systematischen Reviews (SRs), Leitlinien der letzten 10 Jahre

verblindete Literaturauswahl

The selection of the literature from the systematic search (abstract and full-text screening) was conducted independently by two researchers (JK, IR). In case of discrepancies, a consensus was reached through discussion, or the opinion of a third person (IZ) was sought.

Handsuche nach Leitlinien in Datenbanken G-I-N und TRIP

In addition to the systematic literature search and to identify further relevant guidelines, we searched the TRIP database and the Guidelines International Network (G-I-N) database manually between the 10th and 11th of July 2024. We used several combinations of the following search terms: screening, depression, anxiety, substance use disorder, alcohol, drugs, tobacco, primary care, and mental health screening. In the TRIP database, the filters "guidelines" and "primary care" were applied.

Handsuche nach Leitlinien auf Webseiten von Leitlinienorganisationen

Additionally, a manual search for relevant guidelines was also conducted on the websites of the following guideline institutions:

- Association of the Scientific Medical Societies in Germany (*Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften*, AWMF)
- Canadian Task Force on Preventive Health Care (CTFPHC)
- National Institute for Health and Care Excellence (NICE)
- Royal Australian College of General Practitioners (RACGP)
- Scottish Intercollegiate Guidelines Network (SIGN)
- U.S. Preventive Services Task Force (USPSTF)
- World Health Organization (WHO)

Nutzung der Literatur aus FF1 für die 2. FF + Handsuche

For the **second research question** on screening methods, we used the literature identified for the first research question. For a more detailed description of the tools, another manual search was conducted. The core data sources were studies, but some information was also taken from grey literature and web pages.

Handsuche und bereits identifizierte Literatur für FF3

For the **third research question** on implementation aspects, we used the literature identified for the first research question and conducted additional targeted manual searches.

2.2 Inclusion criteria

PICO-Kriterien für FF1

To answer the **first research question** on the benefits and potential harms of mental health screening in primary care as well as the guideline recommendations, relevant literature was selected according to the PICO criteria in Table 2-1.

Table 2-1: Inclusion criteria for RQ1

	Inclusion criteria
Population	Adults aged 18 and over
Intervention	Screening/(early) identification of the following mental disorders (classification according to ICD-11): ■ *Anxiety or fear-related disorders (6B00 – 6B0Z)* ■ *Mood disorders (6A60 – 6A8Z)* ■ *Disorders due to substance use or addictive behaviours (6C40 – 6C5Z)* with a standardised screening tool or via the identification of risk factors, complaints, or symptoms
Comparator	No screening
Outcomes	Outcomes on screening benefits/harms: ■ Mortality ■ Morbidity (Frequency and symptoms of the mental illness) ■ Health related quality of life ■ General and social functioning ■ Potential screening risks (e.g. false-positive results, overdiagnosis and treatment) Screening recommendations (including information on methods/instruments, interval, etc.)
Setting	Primary care
Publication type	■ Systematic reviews ■ HTA-reports ■ Evidence based guidelines
Countries	Europe, North America, Australia & New Zealand
Language	English, German
Publication period	Systematic reviews: 2014-2024 Guidelines: 2019-2024 (or confirmed as valid and up to date)

Ausschluss von Literatur zum Screening in und nach Schwangerschaft und zum Screening von Veteranen

We excluded SRs and guidelines with a focus on pregnant or postpartum women because mental health screening for this population group has been evaluated as part of the revision of the Austrian parent-child examination programme (*Eltern-Kind-Pass*). Further, we excluded SRs and guidelines targeted at veterans because we do not consider them to be a relevant target

group in the Austrian context. The search also brought up some reviews and guidelines for settings other than primary care, e.g., centres specialising in certain diseases, as well as hospitals. These were also excluded.

Einschluss von systematischen Reviews (SR), HTA-Berichten und evidenzbasierten Leitlinien aus Europa, Nordamerika, Australien und Neuseeland

According to the inclusion criteria (see Table 2-1), we included SRs, HTA reports and evidence-based guidelines that were published in English or German language and developed by institutions in Europe, North America, Australia and New Zealand. Only references published in the last ten years were considered for SRs and HTA reports. For identified guidelines that were older than five years, we tried to identify updated versions through a hand search. If no up-to-date version could be identified, authors of the respective guidelines were contacted. Guidelines were included if the guideline authors confirmed that the guidelines were valid and up to date. If no response was received, the guideline was excluded. Evidence-based guidelines were defined in accordance with the General Methods manual by the German Institute for Quality and Efficiency in Health Care (*Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen*, IQWiG) [30] as guidelines that (1) base their recommendations on a systematic search and (2) provide grading for their recommendations, (3) which are linked to the references of the primary/secondary literature of these recommendations.

inkludierte Literatur aus FF1 zur Beantwortung von FF2 und FF3

Included literature for the first research question was also used to answer the **second and third research questions**. Furthermore, relevant references from the systematic literature search were labelled with "tools" or "implementation" during the abstract and full-text screening.

2.3 Quality assessment

Bewertung der Qualität mithilfe von ROBIS und AGREE-II

We assessed the quality (risk of bias) of the included SRs using the ROBIS (Risk of Bias in Systematic Reviews) tool [10]. The quality assessment was conducted by one researcher (JK) and verified by the second researcher (IR).

Verwendung der AGREE-II Domänen 2, 3 und 6

For the quality assessment of the included guidelines, the AGREE-II (Appraisal of Guidelines for Research & Evaluation) tool was used [31]. For the quality assessment of the guidelines, we followed the IQWIG methods for guideline synopses [30] and limited the assessment to three of the six domains of the AGREE-II tool, which were:

- Domain 2: Stakeholder Involvement
- Domain 3: Rigour of Development
- Domain 6: Editorial Independence

nur Leitlinien mit <30 % in einer AGREE-II Domäne werden erwähnt

One researcher (IR) conducted the AGREE assessment. The second researcher (JK) independently assessed a sample of 25% (8 of 28 guidelines). A total value in per cent was calculated for each domain, following the method outlined in the AGREE-II guideline [31], and included in the overview tables. Following the IQWiG manual for guideline synopses, we explicitly report guidelines with a limited quality, using a domain value of < 30 % in one or more of the three assessed domains as reporting threshold [30]. The quality/risk of bias assessment for each publication can be found in the Excel file https://aihta.at/uploads/tableTool/UllCmsPage/gallery/extraction-tables-mental-health-screening1.xlsx.

2.4 Data extraction and analysis

Extraktion der Evidenz und Empfehlungen zum Screening auf psychische Erkrankungen

After the literature selection for the **first research question** (according to the pre-specified inclusion and exclusion criteria, see PICO Table 2-1), information from systematic reviews on the evidence of benefits and harms of mental health screening and guideline recommendations were extracted into tables and analysed narratively.

Evidenz der SRs in Tabellen aufbereitet

For the SR results, we prepared overview tables for each condition, which can be found in the respective results sections. These include information from the included studies on the effectiveness and harms of screening and their results regarding the outcomes defined in the PICO table (see Table 2-1), information on other included studies (e.g., on the effectiveness of treatment options for the respective conditions), the conclusions of the SRs and the quality assessment from the ROBIS tool.

Tabellen für die Leitlinienempfehlungen im Originalwortlaut

auch Zielgruppe, Empfehlungsgrad, Screeningmethode und -intervall extrahiert

For the guideline results, the overview tables include the target population (general population or with certain conditions), the recommendations of the guidelines, the assigned grades of recommendation and levels of evidence (if available), the screening methods, the recommended screening interval and the quality of the guideline according to the AGREE assessment. The recommendations were integrated into the tables in their original wording. The recommendations from German guidelines were translated for consistency, but they can be found in the data extraction tables in the original wording. Regarding the methods, both explicitly recommended and simply mentioned screening tools were included in the table. Those tools that were explicitly recommended by the respective guidelines were marked in **bold**.

kein einheitliches System für Evidenzlevels und Empfehlungsgrade in Leitlinien

Evidenzlevel: meist Level 1 (SR oder Metaanalyse von RCTs) bis Level 4 oder 5 (Fallserien, tw. Expert*innen-Meinung)

As mentioned above, we also extracted the levels of evidence (LoE) and grades of recommendations (GoR) as stated by the guidelines. To date, there is no international consensus on the standardisation of evidence and recommendation grading systems. Thus, the authors of evidence-based guidelines use different systems to categorise their recommendation grades and evidence levels. The LoE focuses on the internal validity of the underlying studies, with systematic reviews usually receiving the highest LoE [30]. The levels of evidence often range from Level 1 (or Level I) to Level 4 (IV) or sometimes 5 (V), with lower numbers indicating better quality of evidence. Level 1 describes meta-analyses or systematic reviews of randomized controlled trials (RCTs), whereas Level 4 or 5 usually comprises case studies or case series, and sometimes also expert opinion. Within the evidence levels, further graduation can be made by “a” and “b” or “+” and “-“.

Stärke der Empfehlung: “A” – meist starke Empfehlung, manchmal „strong“ und „weak“ statt Buchstaben oder spezifische Formulierung

Grades of recommendations express the strength of a recommendation. They are generally based on a consideration of the benefits and harms of an intervention and the specific healthcare context based on the assessment of the respective evidence [30]. The grades of recommendation are used differently in the various guidelines; however, A usually stands for a strong recommendation, and B for a recommendation. Other GoRs used are 0 (open recommendation), I (insufficient evidence, therefore no recommendation in favour or against) or GPP (good practice point, in the absence of evidence). Some guidelines do not use letters to describe the grade of recommendation but give “strong” and “weak” or “conditional” recommendations or express the strength through the wording of the recommendation (e.g., “should”, “should not”, “consider”). The explanation of the evidence levels and recommendation grades can be found in the respective guidelines.

Aufbereitung der in den SRs und Leitlinien genannten Screeningtools für FF2

For the **second research question**, all screening instruments mentioned in the SRs and guidelines used to screen for depression, anxiety, or substance use disorders were extracted and listed in an Excel spreadsheet. Subsequently, a more detailed analysis was carried out for the most frequently mentioned tools. We described screening instruments that were mentioned in at least three (for depression and anxiety) or two (for substance use) studies/guidelines in more detail.

Extraktion der Charakteristika der Screeninginstrumente

Informationen zu Sensitivität und Spezifizität aus SRs und Meta-Analysen

Data and information on the different tools in the areas of detecting depression, anxiety and substance use were extracted narratively from the data sources. The information on abbreviation, German version, diagnosis criteria, description, symptom review period, target condition, target population, screening method, number of items, response format, scaling response categories, score range, severity threshold/risk threshold, study type/population, number of studies and patients, gold standard, cutoff, outcome measure, sensitivity, specificity, administration type, time, costs/rights of use, comments and references were extracted in another Excel sheet. If available, data on the sensitivity and specificity of the screening tools were obtained from SRs and meta-analyses. If such reviews could not be identified, primary studies were used.

qualitative Inhaltsanalyse zur Datensynthese

For the data synthesis, we performed a qualitative content analysis of the extracted information and synthesised the information using a narrative approach.

Beantwortung der FF3 anhand des EUnetHTA Core Models

For the **third research question**, organisational and logistical requirements (e.g. regarding the screening process, care pathway, and required capacity) were addressed based on the questions of the core model of the European Network for HTA (EUnetHTA) [32].

Auswahl der relevanten Aspekte der organisatorischen Domain des EUnetHTA Core Models

The domain of organisational aspects of the EUnetHTA Core Model addresses the ways in which different resources (e.g., human skills and knowledge, money) need to be mobilised and organised when implementing an intervention. It also considers the consequences for the organisation and the health care system. Organisational aspects include, e.g., work processes, patient/participant flow, quality assurance, communication and cooperation, as well as acceptance of the intervention. The organisational domain contains five topics with two to six issues (questions) each. The questions that are relevant for this report are the following [32]:

Gesundheitsversorgungsprozess

- Health delivery process:
  - How does mental health screening affect the current work processes?
  - What kind of patient/participant flow is associated with mental health screening?
  - What kind of involvement has to be mobilised for patients/participants and important others and/or caregivers?
  - What kind of process ensures proper education and training of staff?
  - What kinds of cooperation and communication activities have to be mobilised?
  - In what way is the quality assurance and monitoring system of mental health screening organised?

Struktur der Gesundheitsversorgung

- Structure of health care system:
  - What are the processes ensuring access to mental health screening for patients/participants?

- Process-related costs:
  - What are the costs of processes related to acquisition and setting up mental health screening?
  - How does mental health screening modify the need for other interventions and use of resources?

prozessbezogene Kosten

- Management[1]:
  - What management problems and opportunities are attached to mental health screening?
  - Who decides which people are eligible for mental health screening and on what basis?

Management

- Culture:
  - How is the mental health screening accepted?
  - How are other interest groups taken into consideration during the planning/implementation of mental health screening?

Kultur

All data extractions were conducted by one researcher and verified by a second researcher. The extracted data are presented in tabular form and can be accessed via this link to the Excel file: https://aihta.at/uploads/tableTool/UllCmsPage/gallery/extraction-tables-mental-health-screening1.xlsx.

Datenextraktion und Kontrolle durch jeweils eine Autorin

[1] Due to overlaps in content, the topic "management" was integrated into the topic "health delivery process".

2.5 Study selection

insgesamt 1.659 Quellen

9 SRs und 28 Leitlinien erfüllten Einschlusskriterien

1.659 records were identified through the systematic database search, and 33 additional records were identified through the manual search. 1.521 results were left after de-duplication. 171 full-text articles were assessed for eligibility, and after the exclusion of 131 full-text articles, 9 SRs (with two additional reports) and 28 evidence-based guidelines were included. The flow diagram depicting the selection process can be found in Figure 2-1.

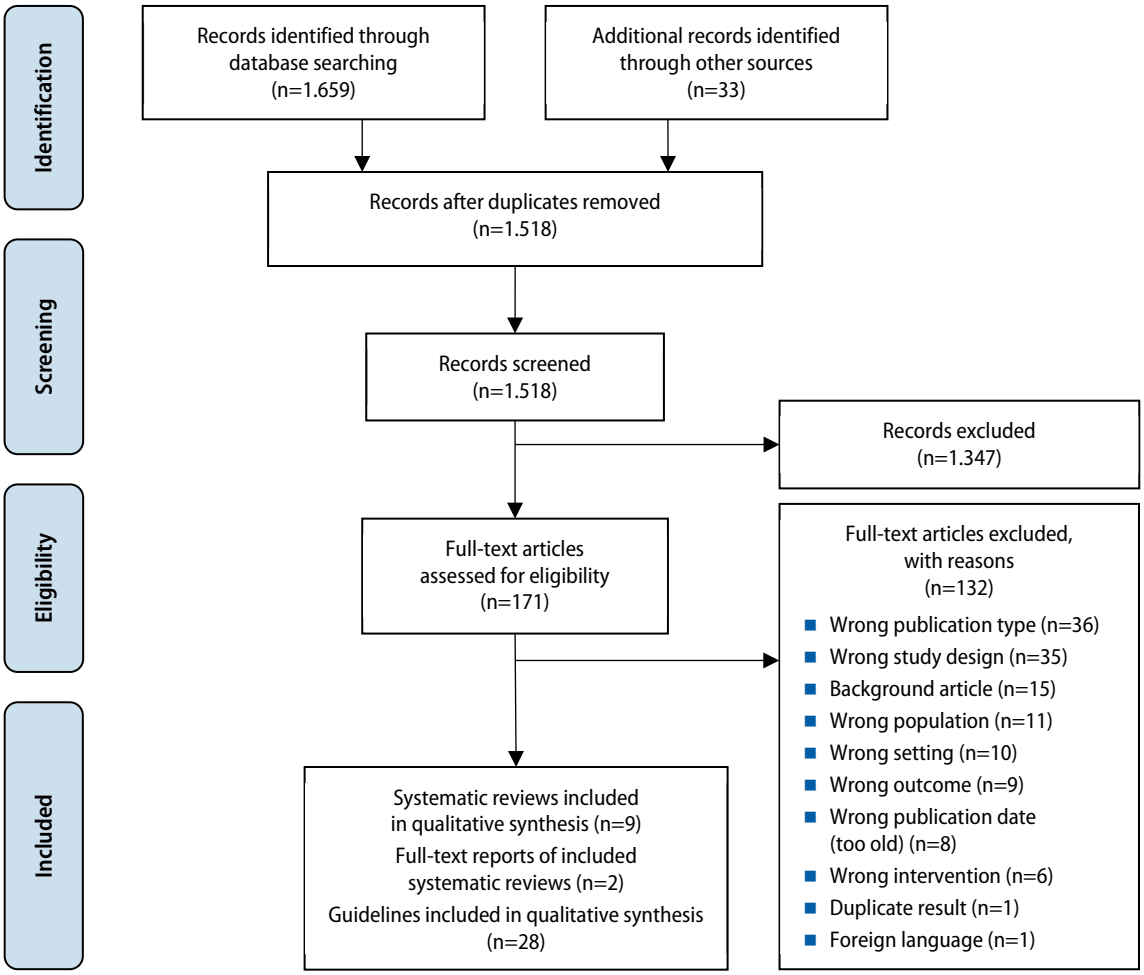

Figure 2-1: Flow chart of study selection (PRISMA Flow Diagram)

2.6 Quality assurance

As part of quality assurance, the report was reviewed by an internal reviewer (IZ) and two external reviewers (DF, SH). The external reviewers were asked to assess the following quality criteria:

- Technical correctness: Is the report technically correct (evidence and information used)?
- Does the report consider the latest findings in the research area?
- Adequacy and transparency of method: Is the method chosen adequate for addressing the research question, and are the methods applied transparently?
- Logical structure and consistency of the report: Is the report's structure consistent and comprehensible?
- Formal features: Does the report fulfil formal criteria of scientific writing (e.g. correct citations)?

The AIHTA considers external peer review by scientific experts from different disciplines a quality assurance method of scientific work. The responsibility for the report content lies with the AIHTA.

3 Results

3.1 Effectiveness of screening and guideline recommendations

3.1.1 Included guidelines and systematic reviews

A total of 28 evidence-based guidelines and 9 SRs (of which three SRs had additional reports) were included after full-text assessment.

Einschluss von 9 SRs und 28 Leitlinien

Systematic reviews

The nine identified SRs were published between 2014 and 2023. In addition to the SRs, two reports [33, 34] providing more information for three SRs [35-37] were identified. Five of the SRs were published by an American Society, of which four were published by the USPSTF [35-38], and one was published by the Women's Preventive Services Initiative (WPSI) [39]. One SR from Canada was published by the Canadian Task Force on Preventive Health Care (CTFPHC) [18], and one SR was conducted by the German Institute for Quality and Efficiency in Health Care [*Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen*, IQWiG] [40]. The two remaining SRs were not commissioned by a specific institute or society. The involved authors were from Canada, the US and the UK [41] in one case and from the US and Canada in the second case [42].

SRs aus USA, Kanada, Deutschland und UK von 2014-2023

Five of the SRs were searching for trials on the effectiveness of depression screening [18, 36, 40-42], two on the effectiveness of screening for anxiety disorders [35, 39] and two SRs addressed the effectiveness of screening for substance use disorders in primary care, of which one addressed screening for harmful alcohol consumption [38] and the other screening for harmful drug use [37]. Table 3-1 provides an overview of the identified SRs.

5 SRs zu Depressionen

2 SRs zu Angststörungen

2 SRs zum Substanzmissbrauch

Table 3-1: Overview of included systematic reviews

Review authors, year, title	Abbreviation [Reference]	Country	Population	Depression	Anxiety	Substance
O'Connor et al. (2023): Depression and suicide risk screening. Updated evidence report and systematic review for the US Preventive Services Task Force	O'Connor 2023a [36]	US	General	X	-	-
O'Connor et al. (2023): Anxiety screening. Evidence report and systematic review for the US Preventive Services Task Force	O'Connor 2023b [35]	US	General	-	X	-
Beck et al. (2022): Screening for depression among the general adult population and in women during pregnancy or the first-year postpartum: two systematic reviews to inform a guideline of the Canadian Task Force on Preventive Health Care	Beck 2022 [18]	Canada	General (including women during pregnancy or first-year postpartum)	X	-	-
Thombs et al. (2021): Does depression screening in primary care improve mental health outcomes?	Thombs 2021 [41]	-	General	X	-	-
Nelson et al. (2020): Screening for anxiety in adolescent and adult women. A systematic review for the Women's Preventive Services Initiative	Nelson 2020 [39]	US	General (adolescent and adult women)	-	X	-
Patnode et al. (2020): Screening for unhealthy drug use. Updated evidence report and systematic review for the US Preventive Services Task Force	Patnode 2020 [37]	US	General	-	-	X
O'Connor et al. (2018): Screening and behavioural counseling interventions to reduce unhealthy alcohol use in adolescents and adults. Updated evidence report and systematic review for the US Preventive Services Task Force	O'Connor 2018 [38]	US	General	-	-	X
German Institute for Quality and Efficiency in Health Care [*Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen*, IQWiG] (2018): Screening for depression [*Screening auf Depression*]	IQWiG 2018 [40]	Germany	General	X	-	-
Thombs et al. (2014): There are no randomized controlled trials that support the United States Preventive Services Task Force guideline on screening for depression in primary care: a systematic review	Thombs 2014 [42]	-	General	X	-	-

Evidence-based guidelines

Leitlinien (LL) aus Deutschland, UK, USA, Canada, Australien und international

aus 2019-2024 (bzw. 2015 aber als aktuell bestätigt)

The included guidelines were published between 2015 to 2024. For one guideline that was last updated in 2015 [43], we received confirmation that the current version was up-to-date. The remaining guidelines were issued during the past five years (2019-2024). Twelve of the identified guidelines were from Germany and published by the Association of the Scientific Medical Societies in Germany [*Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften*, AWMF] [14, 44-54]. Four guidelines were from the US, three of which were developed by the United States Preventive Services Taskforce (USPSTF) [55-57] and one by the American Academy of Family Physicians (AAFP) [58]. Five Canadian guidelines were developed by the British Columbia Centre on Substance Use [59], the Canadian Alcohol Use Disorder Guideline Committee [60], the Canadian Network for Mood and Anxiety Treatments (CANMAT) [61], Diabetes Canada [62] and the Equitable Preventive Praxis Initiative [63]. Further, all four guidelines identified from the UK, were developed by the National Institute for Health and Care Excellence (NICE) [43, 64-66]. Two guidelines were developed in Australia by the Royal Australian College of General Practitioners (RACGP) [67] and the health department of the Australian government [68]. A final international guideline was developed by Monash University [69].

15 LL für Allgemeinbevölkerung, 12 LL zu spezifischen Erkrankungen, 1 für beides

The general population was addressed in 15 guidelines [14, 51-53, 55-57, 59-61, 63-67], while twelve guidelines addressed specific disease populations [43-50, 54, 58, 62, 69]. One guideline addressed both the general and disease populations [68].

meist nur eine psychische Erkrankung in allgemeinen LL adressiert, mehrere psychische Erkrankungen in LL zu bestimmten (körperlichen) Erkrankungen

Most guidelines addressing screening in the general population only addressed one specific disorder in the guideline (13/15), with the other two addressing screening for depression and substance use disorders [63] and anxiety disorders [59]. For guidelines addressing specific disease populations, nine addressed multiple mental disorders [44-49, 54, 62, 69], and three only addressed screening for depression [43, 50, 58]. The guideline addressing both the general and disease populations gave recommendations for multiple mental disorders [68].

12 Erkrankungen adressiert, z. B. Diabetes, Herz-Kreislauf-Erkrankungen, Krebs, Demenz, Multimorbidität, etc.

All but one disease population was addressed only once. Diabetes was addressed in two guidelines, although one guideline addressed type-1 diabetes specifically [46], while the second guideline addressed screening in patients with type-1 diabetes as well as type-2 diabetes [62]. The other eleven identified disease-specific guidelines were for patients with acute coronary syndrome [58], cancer [54], chronic coronary heart disease [44], chronic heart failure [45], chronic physical health problems [43], dementia [50], fatigue [47], multimorbidity [48], irritable bowel syndrome (IBS) [49], alcohol use disorders [68] and polycystic ovary syndrome (PCOS) [69].

Screening auf Depression in 19, Angststörungen in 13, Substanzmissbrauch in 11 Leitlinien adressiert

In total, 19 guidelines addressed screening for depression [14, 43-50, 54, 56, 58, 61-63, 66-69] and 13 addressed screening for anxiety disorders [44-49, 54, 57, 62, 65, 67-69]. Screening of substance use disorders was addressed in eleven guidelines [51-53, 55, 59, 60, 62-64, 67, 68]. A complete overview of the characteristics of the included guideline can be viewed in Table 3-2.

Table 3-2: Overview of included guidelines

Guideline authors, year, title	Abbreviation [Reference]	Country	published by	Population	Depression	Anxiety	Substance
Lam et al. (2024): Canadian Network for Mood and Anxiety Treatments (CANMAT) 2023 Update on Clinical Guidelines for Management of Major Depressive Disorder in Adult	Lam, 2024 [61]	Canada	Canadian Network for Mood and Anxiety Treatments (CANMAT)	General	X	-	-
US Preventive Services Task Force (2023): Screening for Anxiety Disorders in Adults. US Preventive Services Task Force Recommendation Statement	USPSTF, 2023a [57]	US	USPSTF	General	-	X	-
US Preventive Services Task Force (2023): Screening for Depression and Suicide Risk in Adults. US Preventive Services Task Force Recommendation Statement	USPSTF, 2023b [56]	US	US Preventive Services Task Force (USPSTF)	General	X	-	-
Persaud et al. (2023): Preventive care recommendations to promote health equity	Persaud, 2023 [63]	Canada	Equitable Preventive Praxis Initiative	General	X	-	X
Wood et al. (2023): Canadian guideline for the clinical management of high-risk drinking and alcohol use disorder	Wood, 2023 [60]	Canada	Canadian Research Initiative in Substance Misuse	General	-	-	X
German Medical Association [*Bundesärztekammer*] **et al.** (2022): National Care Guideline Unipolar Depression [*Nationale VersorgungsLeitlinie Unipolare Depression*]	BÄK, 2022a [14]	Germany	German Medical Association [*Bundesärztekammer*, BÄK] National Association of Statutory Health Insurance Physicians [*Kassenärztliche Bundesvereinigung*, KBV] Association of the Scientific Medical Societies in Germany [*Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften*, AWMF]	General	X	-	-
National Institute for Health and Care Excellence (2022): Depression in adults: treatment and management. NICE guideline	NICE, 2022 [66]	UK	National Institute for Health and Care Excellence (NICE)	General	X	-	-
Haber & Riordan (2021): Guidelines for the treatment of alcohol problems (4th edition)	Haber, 2021 [68]	Australia	Australian Government, Department of Health	General/ Alcohol use disorder	X	X	X
German Association for Psychiatry, Psychotherapy and Psychosomatics [*Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde*] **et al.** (2021): S3 Guideline Smoking and tobacco addiction: screening, diagnosis and treatment [*S3-Leitlinie Rauchen und Tabakabhängigkeit: Screening, Diagnostik und Behandlung*]	DGPPN, 2021 [53]	Germany	AWMF	General	-	-	X
Royal Australian College of General Practitioners (2021): Guidelines for preventive activities in general practice	RACGP, 2021 [67]	Australia	Royal Australian College of General Practitioners (RACGP)	General	X	X	X

Guideline authors, year, title	Abbreviation [Reference]	Country	published by	Population	Depression	Anxiety	Substance
German Association for Psychiatry, Psychotherapy and Psychosomatics [*Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde*] **& German Society for Addiction Research and Addiction Therapy** [*Deutsche Gesellschaft für Suchtforschung und Suchttherapie*] (2020): S3 Guideline Screening, diagnosis and treatment of alcohol-related disorders [*S3-Leitlinie Screening, Diagnose und Behandlung alkoholbezogener Störungen*]	DGPPN, 2020a [52]	Germany	AWMF	General	-	-	X
German Association for Psychiatry, Psychotherapy and Psychosomatics [*Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde*], **German Society for Addiction Research and Addiction Therapy** [*Deutsche Gesellschaft für Suchtforschung und Suchttherapie*] (2020): S3 Guideline Medication-related disorders [*S3-Leitlinie Medikamentenbezogene Störungen*]	DGPPN, 2020b [51]	Germany	AWMF	General	-	-	X
National Institute for Health and Care Excellence (2020): Generalised anxiety disorder and panic disorder in adults: management. NICE guideline	NICE, 2020 [65]	UK	NICE	General	-	X	-
US Preventive Services Task Force (2020): Screening for Unhealthy Drug Use: US Preventive Services Task Force Recommendation Statement	USPSTF, 2020 [55]	US	USPSTF	General	-	-	x
National Institute for Health and Care Excellence (2019): Alcohol-use disorders: diagnosis, assessment and management of harmful drinking (high-risk drinking) and alcohol dependence. NICE guideline	NICE, 2019 [64]	UK	NICE	General	-	-	X
British Columbia Centre on Substance Use (2019): Provincial guideline for the clinical management of high-risk drinking and alcohol use disorder	BCCSU, 2019 [59]	Canada	British Columbia Centre on Substance Use (BCCSU)	General	-	-	X
German Medical Association [*Bundesärztekammer*] **et al.** (2023): National Care Guideline Chronic heart failure [*Nationale Versorgungsleitlinie chronische Herzinsuffizienz*]	BÄK, 2023 [45]	Germany	BÄK, KBV, AWMF	Chronic heart failure	X	X	-
German Society of General Practice and Family Medicine [*Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin*] (2023): S3 Guideline Multimorbidity [*S3-Leitlinie Multimorbidität*]	DEGAM, 2023 [48]	Germany	AWMF	Multi-morbidity	X	X	-
Oncology guideline programme [*Leitlinienprogramm Onkologie*] (2023): Psycho-oncological diagnostics, counselling and treatment of adult cancer patients [*Psychoonkologische Diagnostik, Beratung und Behandlung von erwachsenen Krebspatient*innen*]	Leitlinien-Programm Onkologie, 2023 [54]	Germany	Oncology guideline programme of the AWMF, German Cancer Society [*Deutsche Krebsgesellschaft*, DKG], German Cancer Aid [*Stiftung Deutsche Krebshilfe*, DKH]	Cancer	X	X	-
German Association for Psychiatry, Psychotherapy and Psychosomatics [*Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde*] & **German Neurological Society** [*Deutsche Gesellschaft für Neurologie*] (2023): S3 Guideline Dementia [*S3-Leitlinie Demenzen*]	DGPPN, 2023 [50]	Germany	AWMF	Dementia	X	-	-
German Diabetes Society [*Deutsche Diabetes Gesellschaft*] et al. (2023): S3 Guideline Treatment of type 1 diabetes [*S3-Leitlinie Therapie des Typ-1-Diabetes*]	DDG, 2023 [46]	Germany	AWMF	Diabetes type-1	X	X	-

Guideline authors, year, title	Abbreviation [Reference]	Country	published by	Population	Depression	Anxiety	Substance
Teede et al. (2023): Recommendations from the 2023 international evidence-based guideline for the assessment and management of polycystic ovary syndrome	Teede, 2023 [69]	International	Monash University, Melbourne	Polycystic ovary syndrome	X	X	-
Robinson et al. (2023): Diabetes and Mental Health	Robinson, 2023 [62]	Canada	Diabetes Canada	Diabetes	X	X	X
German Medical Association [*Bundesärztekammer*] et al. (2022): National Care Guideline Chronic coronary heart disease [*Nationale Versorgungsleitlinie chronische koronare Herzkrankheit*]	BÄK, 2022b [44]	Germany	BÄK, KBV, AWMF	Chronic coronary heart disease	X	X	-
German Society of General Practice and Family Medicine [*Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin*] (2022): S3 Guideline Fatigue [*S3 Leitlinie Müdigkeit*]	DEGAM, 2022 [47]	Germany	AWMF	Fatigue	X	X	-
German Society for Digestive and Metabolic Diseases [*Deutsche Gesellschaft für Gastroenterologie, Verdauungs- und Stoffwechselkrankheiten*] **& German Society for Neurogastroenterology and Motility** [*Deutsche Gesellschaft für Neurogastroenterologie und Motilität*] (2021): Update S3 Guideline Irritable bowel syndrome: Definition, pathophysiology, diagnostics and therapy [*Update S3-Leitlinie Reizdarmsyndrom: Definition, Pathophysiologie, Diagnostik und Therapie*]	DGVS, 2021 [49]	Germany	AWMF	Irritable bowel syndrome	X	X	-
Frost et al. (2019): Depression following acute coronary syndrome events: Screening and treatment guidelines from the AAFP	Frost, 2019 [58]	US	American Academy of Family Physicians (AAFP)	Acute coronary syndrome	X	-	-
National Institute for Health and Care Excellence (2015): Depression in adults with a chronic physical health problem: recognition and management: NICE guideline	NICE, 2015 [43]	UK	NICE	Chronic physical health problems	X	-	-

Abbreviations: AAFP – American Academy of Family Physicians; AWMF – Association of the Scientific Medical Societies in Germany [Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften]; BÄK – German Medical Association [Bundesärztekammer]; BCCSU – British Columbia Centre on Substance Use; CANMAT – Canadian Network for Mood and Anxiety Treatments; DEGAM – German Society of General Practice and Family Medicine [Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin]; DDG – German Diabetes Society [Deutsche Diabetes Gesellschaft]; DGPPN – German Association for Psychiatry, Psychotherapy and Psychosomatics [Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde]; DGVS – German Society for Digestive and Metabolic Diseases [Deutsche Gesellschaft für Gastroenterologie, Verdauungs- und Stoffwechselkrankheiten]; KBV – National Association of Statutory Health Insurance Physicians [Kassenärztliche Bundesvereinigung]; NICE – National Institute for Health and Care Excellence; RACGP – Royal Australian College of General Practitioners; UK – United Kingdom; US – United States of America; USPSTF – US Preventive Services Task Force;

3.1.2 Depression screening recommendations and evidence

5 SRs zum Screening auf Depressionen

3 SRs mit niedrigem Verzerrungsrisiko (Risk of Bias, RoB), 1 SR mit unklarem RoB, 1 SR mit hohem RoB

We included five SRs that evaluated the effectiveness of screening for depression in the general population. One SR was conducted by the German Institute for Quality and Efficiency in Health Care (IQWiG) [40]. One US SR, commissioned by the USPSTF [36], and one Canadian SR, commissioned by the CTFPHC [18], were both conducted to inform recommendations by the respective institutions. Finally, two SRs were not commissioned by one specific institution but critically evaluated the recommendations from the USPSTF regarding screening for depression in the general population [41, 42]. All five of the included SRs evaluated the evidence on the effectiveness of screening for depression in the general population in the context of primary care. Of the five SRs, three had a low RoB [18, 40, 42], while one had an unclear RoB [41] and one a high RoB [36] (Table 3-3). The SR with an unclear RoB [41] did not provide information regarding, for example, the methods used to select studies (e.g., whether two researcher independently screened abstracts and full-texts), and there was no assessment of the quality of the included studies. The SR rated with a high RoB [36], raised high concerns regarding specification of study eligibility criteria and regarding the synthesis. For example, although it was specified that only RCTs should be included, the synthesis also incorporated three non-randomised studies. Further, the included studies were very heterogeneous which was not adequately taken into account. Additionally, the relevance of the identified studies for the review question was not appropriately considered and it can be argued that the reviewers emphasized results.

19 LL zum Depressionsscreening, 6 davon zur Allgemeinbevölkerung & 13 zu spezifischen Erkrankungen

Additionally, we identified 19 guidelines with recommendations concerning depression screening. Six of these guidelines addressed screening for depression in the general population [14, 56, 61, 63, 66, 67] and 13 focused on screening for depression in specific disease populations [43-50, 54, 58, 62, 68, 69]. Only one guideline reached a score below 30% in the second AGREE-II domain (Stakeholder Involvement) [62]. All other guidelines had scores above 30% in all three evaluated domains (Table 3-4).

Summary of evidence from systematic reviews

Inclusion criteria, included studies and study overlap

heterogene Einschlusskriterien der SRs

z. B. Studiendesign, Zeitpunkt der Randomisierung

Although all included SRs aimed to evaluate the effectiveness of screening for depression in the general population, the inclusion and exclusion criteria applied by each review team were heterogeneous. Regarding study designs, four reviews only included RCTs (and cluster RCTs) [18, 36, 41, 42], while the SR conducted by IQWiG also included prospectively planned nonrandomised studies with a time parallel control group [40]. However, the IQWiG SR only considered studies evaluating the complete screening chain (studies with screening and subsequent treatment) [40]. In addition, three SRs specified that randomisation must have occurred prior to screening [18, 41, 42].

SRs inkludierten z. T. schwangere und postpartum Frauen und ältere Personen

The population of interest was the general population in all the SRs, but two reviews additionally included studies on the screening of pregnant and postpartum women [18, 36], as well as older people in one SR [36]. Studies that screened adults with an elevated depression risk were excluded from the IQWiG SR [40] but included in the SR for the CTFPHC [18]. However, the latter excluded studies if more than 20% of the sample had a recent history

of depression or were currently diagnosed or receiving treatment for a mental disorder. The review by Thombs et al. [42] excluded studies with patients known to have suffered from depression.

Generally, studies were included that compared screening to no screening. However, two SRs additionally considered studies that also screened participants of the control groups without providing the results to the healthcare practitioner nor the patient [18, 36]. Finally, three SRs defined that similar treatment options must have been available for the intervention and control group [18, 41, 42].

3/5 SRs: ähnliche Behandlungsoptionen für Interventions- und Kontrollgruppe als Einschlusskriterium

Based on their respective inclusion and exclusion criteria, the five identified SRs each included between 0 [42] and 17 [36] studies for the evaluation of the effectiveness of depression screening. Consequently, a total of 26 individual studies on the effectiveness of screening in primary care were included across the five SRs. Of these, 22 studies were only included in one SR, two in two SRs and two studies in three SRs. The highest overlap was between Thombs 2021 [41] and Beck 2022 [18], which shared three included studies. Furthermore, only two studies included in the USPSTF SR [36] were included in any other SR, and only one study included in the IQWiG SR [40] was included in any other SR.

zw. 0-17 Studien inkludiert, von insgesamt 26 Studien, 22 nur in jeweils einem Review eingeschlossen

SR results

Two SRs provide results for the outcome **mortality**: In the IQWiG SR, mortality, which was assessed through the outcome suicidality, was evaluated in four prospective cohort studies (n=NA[2]). There was no evidence that screening reduced mortality compared to no screening, with low certainty of evidence [40]. The USPSTF SR identified one RCT (n=443) that provided evidence on mortality with insufficient strength of evidence and showed no differences between screened and unscreened groups [36].

Mortalität in 2/5 SRs: keine Gruppendifferenz

Results on the outcome **morbidity** were reported in four SRs. Two RCTs and one quasi-RCT (n=3.343), included in the IQWiG SR, showed no evidence for the reduction of the frequency of depression in the screened vs unscreened group and one RCT and one quasi-RCT (n=2.374), did not show any evidence for an improvement of severity of depressive symptoms after three months to five years follow-up [40]. A total of five RCTs that reported on the outcome morbidity of depression were included in the SR by Thombs 2021, with follow-up times ranging between three and 24 months. They showed mixed results concerning the improvement of mental health symptoms in the screening groups with two RCTs and one cluster-RCT (n=10.696) showing no group differences for mental health symptoms or well-being, one RCT (n=462) showing both an improvement in the screening group and no differences between groups for different measures of depression symptoms, and one cluster-RCT (n=5.912) showing no difference as well as worse results for the screened participants [41]. The Canadian SR by Beck 2022 identified three RCTs (n=2.875) with follow-up times ranging from six to 18 months, reporting on changes in depression symptoms. There were little to no differences in symptoms at any time point [18]. The 14 RCTs and three CCTs (n=18.347) that were included in the USPSTF SR for the outcome morbidity showed a benefit for screening for depression at six months after screening, although there was no clear benefit in measures of symptom severity. The strength of evidence was moderate [36].

Morbidität in 4/5 SRs:

keine Differenz in Depressionsausmaß bzw. Symptomen in 2 SRs,

gemischte Ergebnisse in 1 SR

Verbesserung der Symptome nach 6 Monaten in 1 SR

[2] Authors provide their own calculations of the hypothetical population size based on the average population size in the community.

Only one SR provided results regarding the outcome **health-related quality of life:** two RCTs (n=2.213) showed that screening resulted in little to no difference in the mean QALYs or in quality-of-life utility scores at any time-point (baseline compared to six, twelve or 18 months) and that there was uncertain evidence concerning the mental and physical quality of life at three, six or twelve months post screening [18].

gesundheitsbezogene Lebensqualität in 1/5 SRs: keine Verbesserung

None of the included SRs identified evidence regarding the outcome **general and social functioning**.

keine Evidenz zu allgemeinem und sozialem Funktionsniveau

Two SRs reported results for the outcome **screening risks or harms**: The Canadian SR by Beck 2022 identified one RCT (n=1.001) that reported on harms due to antidepressant use in screened and unscreened groups and found little to no difference in bleeding and increase of appetite at any time point (six, twelve and 18 months) but a slight decrease in drowsiness (at six, twelve and 18 months) and gastrointestinal upset at 18 months in the screened group . Another RCT (n=462) reported on adverse events, but it was not possible to estimate an effect size [18]. Further, the USPSTF review included one study (n=642) that directly assessed harms due to screening and did not report any adverse events. The evidence from the 14 RCTs and three CCTs was also evaluated for indirect evidence on screening harms and found no patterns indicating a harmful impact of screening. Furthermore, one RCT assessing suicide risk (n=443) indicated a possible higher risk for suicidal ideation with screening, but the findings were inconclusive due to a lack of statistical significance and wide confidence intervals [36].

Risiken und Schaden des Screenings in 2/5 SRs:

keine direkte Evidenz, dass Screening Schaden zufügt

Regarding **other outcomes**, the USPSTF SR further included 14 studies and ten SRs on the accuracy of screening, identifying several screening tests (e.g. PHQ-9, PHQ-2), that demonstrated adequate test accuracies. For evidence on the benefits of interventions for depression, the authors included 30 SRs for psychological interventions and ten SRs for pharmacological interventions, with the evidence showing improvements in depression severity with psychological interventions and small but significant effects for antidepressant medications. Furthermore, for evidence on the harms of interventions, they included four SRs for the harms of psychological interventions and one cohort study, as well as 22 SRs for the harms of pharmacological interventions, showing no increase of harm for psychological treatments but a higher dropout rate for pharmacological treatments [36].

indirekte Evidenz für Screening in 1 SR durch Studien zur Genauigkeit von Screeningtools & zur Effektivität von Interventionen

The authors of the USPSTF SR concluded that there is direct evidence that indicates that screening programmes improve depression outcomes and that robust indirect evidence, through screening accuracy studies, shows that screening tools are feasible to administer in primary care. However, the authors also mention that it was difficult to isolate the specific effects of screening from additional programme components in the included studies [36]. The authors of the other four SRs came to different conclusions. Beck 2022 stated that the currently available evidence is not sufficient to determine whether screening for depression in the general population is effective [18]. The authors from the IQWiG SR also concluded that there is no evidence for the benefit or harm of depression screening in primary care [40].

1 SR findet direkte Evidenz für Nutzen von Depressionsscreening

4/5 SRs kommen zu gegensätzlichen Schlussfolgerungen

The review by Thombs 2014 did not identify any studies that met all three points of their inclusion criteria[3]. Since they could not identify any eligible studies, they only re-evaluated RCTs that were included in a USPSTF and two Cochrane reviews to determine whether these corresponded to their inclusion criteria. None of the 13 studies fulfilled all three criteria, with four studies not fulfilling any. The authors concluded that there is currently not enough evidence to recommend screening for depression to healthcare practitioners, but that since depression is a condition with a major impact on the quality of life, health professionals should be aware of symptoms of depression, especially in people at high risk, such as those with a history of depression, comorbidity or substance use [42]. The other review by Thombs concluded that clinicians should generally be aware of common depression symptoms, especially in patients with higher depression risk and that they should involve patients in a discussion about their overall well-being, including their mental health, instead of screening. They further suggest providing patients with education about depression and discussing different management options [41].

1 SR: keine Studien inkludiert aufgrund von strikten Einschlusskriterien (Randomisierung vor Screening, Ausschluss von Pat. mit bereits bekannter Depression, ähnliche Behandlungsoptionen für Interventions- und Kontrollgruppe)

In summary, although most of the SRs included very different studies, four out of the five SRs deemed the current available evidence for depression screening in primary care as insufficient to indicate a possible screening benefit.

4/5 SRs bewerten Evidenz für Depressions-Screening als unzureichend

[3] (1) RCTs that randomised patients prior to screening with a screening tool with a definite cut-off score, (2) Patients known to have suffered from depression must have been excluded, (3) Additionally, similar treatment options must have been available for the intervention and control group.

Table 3-3: Systematic reviews of effectiveness of depression screening

Author, year	Included studies on effectiveness and harms of screening	PICO outcomes	Other included studies	Conclusion of SR	Quality assessment
O'Connor, 2023a [36]	**Benefits of screening:** Depression: 14 RCTs, 3 CCTs Suicide risk: 1 RCT **Harms of screening:** Depression: ■ Directly assessed harms: 1 study ■ Indirectly used to infer harms: 14 RCTs, 3 CCTs (same studies as for benefit of screening) ■ Suicide risk: 1 RCT	**Mortality:** 1 RCT (n=443), among primary care patients who screened positive for depression, there was 1 suicide attempt after 2w; there were no group differences on any of 3 items measuring suicidal ideation; insufficient strength of evidence **Morbidity:** 14 RCTs, 3 CCTs (n=18. 437); Evidence supported the benefits of screening for depression; eg, at 6m postbaseline or 6m postpartum (or the closest follow-up time point to 6m). However, no clear benefit in symptom severity measures was found; moderate strength of evidence for benefit **Health-related quality of life:** no evidence **General and social functioning:** no evidence **Screening risks:** Directly assessed harms: 1 study (n=642) no adverse events; Indirectly used to infer harms: 14 RCTs, 3 CCTs (n=18 437); no pattern of results indicating harmful impact; moderate strength of evidence for little to no harm **Screening for suicide risk:** 1 RCT (n=443); two of 3 suicidal ideation items indicated a possible higher risk with screening; however, the findings were inconclusive due to lack of statistical significance and very wide confidence intervals; insufficient strength of evidence.	**Accuracy of screening:** 14 studies, 10 SRs **Benefits of treatment:** Psychological: 30 SRs Pharmacological: 10 SRs **Harms of treatment:** Psychological: 4 SRs Pharmacological: 1 cohort, 22 SRs	Direct evidence indicated that screening programs improved depression outcomes. In addition, robust indirect evidence exists that screening tools feasible to administer in primary care settings have reasonable accuracy and that treatment is effective. The direct evidence is more equivocal than the indirect evidence, being based on a smaller number of studies and having fewer statistically significant findings. The presence of additional program components beyond screening in many of the depression screening studies made it difficult to isolate the specific effects of screening alone in these studies. Evidence supported depression screening in primary care settings, including during pregnancy and postpartum. There are numerous important gaps in the evidence for suicide risk screening in primary care settings.	High RoB
Beck, 2022 [18]	3 RCTs	**Mortality:** not an outcome of interest in this review **Morbidity:** 3 RCTs (n=2.875); screening likely results in little to no difference in depression symptoms at any time point **Health-related quality of life:** 2 RCTs (n=2.213); screening likely results in little to no differences in in mean QALYs or change in quality-of-life uitility scores; uncertain evidence about the effect on mental and physical quality of life **General and social functioning:** no evidence **Screening risks:** 1 RCT (n=1.001) harms due to antidepressant use in screened and unscreened groups showed little to no difference for bleeding and increased appetite at any time point and a slight decrease in drowsiness and gastrointestinal upset. 1 RCT (n=462) reported adverse events; however, the effect size was not estimable	0 studies	Across outcomes for the general adult population, screening for depression likely results in little to no effect for screening. There was moderate certainty (serious indirectness) in the evidence from Kronish et al. that screening for depression likely results in little to no difference; however, the evidence was uncertain from Mallen et al. (very serious RoB, very serious indirectness) and Leung et al. (very serious RoB, serious indirectness, serious imprecision). None of the trials included patients who had characteristics that may suggest elevated risk of depression, adding no new evidence to the adult SR update in 2013, which did not include any results from trials. Consequently, there is little information to determine the effectiveness of screening in these populations, and what information exists has several limitations.	Low RoB
Thombs, 2021 [41]	5 RCTs	**Mortality:** NR **Morbidity:** mixed results or unimproved mental health symptoms in intervention group: 2 RCTs (n=1.970), 1 cRCT (n=8.726) no differences in mental health symptoms or well-being;	0 studies	Instead of screening with symptom questionnaires, we encourage clinicians to engage patients in discussions about their overall wellbeing, including mental health. Recognise that depression may be a process that takes more than a single consultation to investigate. Be alert to clinical cues that could suggest depression, particularly among patients at risk	Unclear RoB

Author, year	Included studies on effectiveness and harms of screening	PICO outcomes	Other included studies	Conclusion of SR	Quality assessment
Thombs, 2021 [41] *(continuation)*		1 RCT (n=462) results that showed no difference and results that favoured screening; 1 cRCT (n=5.912) results that showed no difference and results that were worse for screened participants; **Health-related quality of life:** NR **General and social functioning:** NR **Screening risks:** NR		because of factors such as family or personal history of mental health concerns, including problematic substance use, unexplained medical symptoms, or overly frequent use of medical services. These include both somatic cues, such as insomnia, anhedonia, orfatigue, and psychological cues, such as low mood or overly negative thinking. If mental health concerns are reported by a patient or are otherwise identified, provide education about depression and other common mental health conditions, including the different ways that symptoms may be experienced and, when appropriate, discuss different management options.	
IQWiG, 2018 [40]	2 RCTs, 5 non-RCTs	**Mortality:** 4 prospective cohort studies (n=NR) No evidence for the benefit of screening vs. no screening for the outcome suicidality, low certainty of evidence **Morbidity:** Frequency of depression: 2 RCTs, 1 quasiRCT (n=3.343) No evidence for the benefit of screening vs. no screening for the frequency of depression. Severity of depressive symptoms: 1 RCT, 1 quasiRCT (n=2.374) No evidence of benefit for the outcome severity of depressive symptoms. **Health-related quality of life:** no evidence **General and social functioning:** no evidence **Screening risks:** no evidence	0 studies	In the 7 included studies on the screening chain, most of which were conducted in Japan, the outcomes suicide and depression (severity of symptoms and prevalence) were analysed. For both outcomes, no evidence for the benefit of screening for depression could be identified from these studies. Conclusion: Overall, there is no evidence of benefit or harm for systematic screening for depression.	Low RoB
Thombs, 2014 [42]	0 studies	**Mortality:** no evidence **Morbidity:** no evidence **Health-related quality of life:** no evidence **General and social functioning:** no evidence **Screening risks:** no evidence	0 studies	The main finding of this SR was that no RCTs have compared depression outcomes between patients randomized to be screened versus not screened for depression in trials that met the necessary criteria: determined eligibility and randomized patients prior to screening; excluded patients already known to have depression or already being treated for depression; and provided similar depression management options to patients identified as depressed via screening or via other methods in the comparison group. Although our findings show that there is not enough evidence to recommend that healthcare practitioners use screening to attempt to identify patients who may have depression, depression is a disabling condition with a major impact on quality of life. Thus, clinicians should be aware of signs that depression may be present, such as low mood, loss of interest in activities, insomnia and fatigue. Healthcare practitioners should be particularly vigilant among patients who may be at high risk of depression, including patients with a chronic medical condition, a past history of depression, a pattern of unexplained somatic symptoms and frequent use of medical services, or substance abuse.	Low RoB

Abbreviations: CCT – controlled clinical trial; cRCT – cluster randomised trial; IQWiG – Institute for Quality and Efficiency in Health Care [Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen]; m – month(s); NR – not reported; RCT – randomised controlled trial; RoB – Risk of Bias; SR – systematic review; w – week(s)

Summary of guideline recommendations

General population

5/6 LL empfehlen Screening auf Depression in der Allgemeinbevölkerung

3/6 LL definieren Risikofaktoren

Screening Intervall: pragmatisch oder alle 3-5 Jahre

Five out of six identified guidelines generally recommended screening for depression [14, 56, 61, 63, 66], while the Royal Australian College of General Practitioners (RACGP) specifically recommended against screening the general population for depression [67]. Instead, the latter proposed that clinicians should be alert to various symptoms of depression, such as low mood or substance use and use screening tools opportunistically in case depressive symptoms are present. The target population in the different guidelines ranged from all adults above the age of 18 [66], adults including pregnant and postpartum women, as well as older adults [56], and patients with specific risk factors, such as depressive symptoms [14], modifiable (e.g., pregnancy, night shift work, insomnia, etc.) and static (e.g., female sex, family history of mood disorders, death of a spouse, etc.) risk factors [61], or individuals experiencing adversities or disadvantages, such as belonging to a marginalised group or being from a lower social status [63]. Three guidelines did not contain information on screening intervals [14, 61, 66]. While the remaining two guidelines stated that there is missing evidence to propose an optimal screening interval, the USPSTF suggested a pragmatic approach by screening individuals that have not been screened before and using clinical judgment to determine when screening for depression should take place [56]. In contrast, the Canadian guideline by the Equitable Preventive Praxis Initiative suggested a screening interval of every three to five years [63].

Disease populations

13 LL für 12 verschiedene Erkrankungen

Guidelines for the screening of depression have been identified for the following conditions:

- Acute coronary syndrome [58]
- Alcohol-use disorder [68]
- Cancer [54]
- Chronic coronary heart disease [44]
- Chronic heart failure [45]
- Chronic physical health problems [43]
- Dementia [50]
- Diabetes [46, 62]
- Fatigue [47]
- Irritable bowel syndrome (IBS) [49]
- Multimorbidity [48]
- Polycystic ovary syndrome (PCOS) [69]

13/13 LL empfehlen ein Screening auf Depression

häufige Empfehlung gleich bei der Diagnose zu screenen

All 13 guidelines give a recommendation in favour of depression screening or assessment. However, three guidelines did not specifically recommend screening for depression but stated that screening for psychological distress and psychiatric disorders should be conducted and mentioned depression-specific screening tools [45, 54, 62]. Depression screening was further recommended specifically for older adults with diabetes, apart from recommendations for the general population with diabetes [62]. While most of the guidelines did not provide information on a screening interval, the German guideline for chronic coronary heart disease [44], the Australian guideline for PCOS [69], the Canadian diabetes guideline [62] and the German AWMF guideline for

heart failure [45], all suggested that screening should be conducted as part of diagnosis. Further, screening should be repeated at regular intervals thereafter [45], especially during critical phases or changes in the disease [46, 54] or during and after certain life events (e.g., pregnancy) [69]. A very specific screening time was provided by the American Academy of Family Physicians guideline that defined people within three months of an acute coronary syndrome event (e.g., unstable angina or myocardial infarction) as their target population [58].

Screening methods

Recommended or mentioned screening methods in the guidelines were:

verschiedene Screeningmethoden:

- Screening for risk factors prior to screening with screening tools, e.g.,
  - „Be alert for the various symptoms of depression […]. If present, use one of the validated mental health assessment tools to undertake further assessment.“ [67]
  - „Screen for depression using a validated scale […] in individuals with risk factors for depression“ [61]
  - Offer screening tests to people with risk factors for depression: previous depressive episodes, family history of bipolar or depressive disorders, suicide attempts in own or family history, somatic and mental illnesses, substance use, current stressful life events, lack of social support [14]
  - Offer screening tests to people with symptoms or characteristics: *patient-reported symptoms*: e.g., fatigue; sleep disorders; appetite disorders; diffuse headache; feeling of pressure in the throat and chest; functional disorders of the heart and circulation, breathing, stomach and intestines; dizziness, visual disturbances; muscle tension, diffuse nerve pain; loss of libido, cessation of menstruation; memory disorders; *characteristics of appearance and interactional behaviour*: e.g., neglect of personal hygiene and clothing; altered gestures, facial expressions and physiognomy; altered speech behaviour (tone, tempo, modulation); decreased verbal expression and comprehension; psychomotor deceleration [14]

Screening auf Risikofaktoren vor eigentlichem Screening

- Validated questionnaires, e.g.,
  - different versions of the PHQ (PHQ-2, PHQ-9, PHQ-D) [14, 45-47, 49, 54, 56, 61, 62]
  - two-question screening tools (Whooley questions, PHQ-2, 2-questions), e.g. [14, 43, 61, 66]

Verwendung validierter Screeningfragebögen

- Specific questionnaires for specific populations:
  - diabetes: Problem Areas in Diabetes (PAID), Diabetes Distress Scales (DDS) [62]
  - dementia: Cornell Scale for Depression in Dementia (CSDD) [50]
  - elderly: 30-item-version of the Geriatric Depression Scale (GDS) [50]

spezifische Screeningfragebögen bei bestimmten Erkrankungen

Table 3-4: Depression recommendations in 16 evidence-based guidelines

Guideline	Target population	Recommendations		GoR	Method	Interval	Quality (%)
General population							
RACGP, 2021 [67]	Asymptomatic (low-risk) people	Screening: General population screening for depression is not recommended.	✗	generally not recommended	NA	NA	53/61/46
		Case finding: Be alert for the various symptoms of depression (eg low mood, substance use, insomnia, anhedonia, suicidal thoughts, fatigue and persistent somatic complaints) in the adult population. If present, use one of the validated mental health assessment tools to undertake further assessment.	✓	conditionally recommended	Screening tools (e.g. Sphere-12, K10 DASS, DMI-10, DMI-18)	Opportunistically	
BÄK, 2022a [14]	Patients with risk factors for a depressive disorder and/or symptoms/characteristics that indicate a depressive disorder	In the case of patients who belong to a risk group, measures for the early detection of depressive disorders should be offered during contacts in GP care and in general hospitals. If symptoms or features are present that indicate a depressive disorder, the presence of a depressive disorder or the presence of other symptoms of a depressive disorder should be actively explored.	✓	Strong positive recommendation	Screening tools (e.g. PHQ-2; Whooley Questions, PHQ-D, WHO-5, ADS)	NR	100/94/100
NICE, 2022 [66]	People aged 18 and over	Be alert to possible depression (particularly in people with a past history of depression or a chronic physical health problem with associated functional impairment) and consider asking people who may have depression if: ■ During the last month, have they often been bothered by feeling down, depressed or hopeless? ■ During the last month, have they often been bothered by having little interest or pleasure in doing things?	✓	weak recommendation ("consider")	Screening tools (**Whooley questions**)	NR	94/100/100
USPSTF, 2023b [56]	Adults, including pregnant and postpartum persons, and older adults (65 years or older)	The USPSTF recommends screening for depression in the adult population, including pregnant and postpartum persons, as well as older adults (65 years or older)	✓	Grade B	Screening tools (e.g. PHQ, CES-D, GDS, EPDS)	No evidence of optimal interval, pragmatic approach for adults who have not been screened yet and using clinical judgement	72/100/75
Persaud, 2023 [63]	people experiencing disadvantages (specific groups known to experience health disparities, including people with a low income, Indigenous people, racialized people, people who identify as 2SLGBTQI+ and people with functional limitations)	We recommend screening for depression together with appropriate supports in adolescents and adults experiencing disadvantages.	✓	Strong recommendation, moderate-certainty evidence	NR	No evidence of optimal interval, suggest every 3-5 years	67/81/58

Guideline	Target population	Recommendations		GoR	Method	Interval	Quality (%)
Lam, 2024 [61]	individuals with risk factors (static and modifiable risk factors)	Carry a high index of suspicion for MDD in individuals with exposure to static nonmodifiable risk factors and dynamic, potentially modifiable risk factors.	✓	Level 4	Screening tools (e.g. **PHQ-2, PHQ-9**)	NR	72/82/79
		Screen for depression using a validated scale (e.g., PHQ-2 followed by the PHQ-9) in individuals with risk factors for depression, when there are supports and resources in place to follow up with full diagnostic assessment and treatment.	✓	Level 2			
		For equity-deserving groups in particular, use screening, culturally competent care, collaborative care, and digital health interventions to improve access to and quality of mental health care	✓	Level 4			
Disease Population							
NICE, 20154 [43]	Chronic physical health problems	Be alert to possible depression (particularly in patients with a past history of depression or a chronic physical health problem with associated functional impairment) and consider asking patients who may have depression two questions, specifically: ■ During the last month, have you often been bothered by feeling down, depressed or hopeless? ■ During the last month, have you often been bothered by having little interest or pleasure in doing things?	✓	weak recommendation ("consider")	Screening tools (**Whooley questions**)	NR	89/100/100
Frost, 2019 [58]	Adults who are within the 3 months following an acute coronary syndrome event (unstable angina or myocardial infarction)	The American Academy of Family Physicians recommends that clinicians screen for depression, using a standardized depression screening tool, in patients who have recently experienced an acute coronary syndrome event.	✓	weak recommendation, low-quality evidence	Screening tools (BDI-II)	NR	67/90/33
Haber, 2021 [68]	Alcohol-use disorders	Assessment for mental health problems, such as anxiety, depressive symptoms and suicidal risk, should be routine, including mental state examination. Referral for further specialist assessment may be needed if significant psychiatric problems are suspected.	✓	GPP	Screening tools (K10, K6)	NR	78/42/50
DGVS, 2021 [49]	Irritable bowel syndrome (IBS)	In patients with IBS, psychological influencing factors and comorbidities such as anxiety and depression should already be recorded and documented in the basic anamnesis.	✓	B	Screening tools (HADS-D, PHQ-D)	NR	94/81/92
BÄK, 2022b [44]	Chronic coronary heart disease	The probability of a depressive disorder should be assessed using screening questions in the medical history interview or standardised questionnaires.	✓	Strong positive recommendation	Medical interview with two questions/ screening tools (HADS, PHQ-9)	As part of diagnostics	94/92/100

[4] Last update in 2015. Authors confirmed that the current version is up-to-date (Date: 17.07.2024).

Guideline	Target population	Recommendations		GoR	Method	Interval	Quality (%)
DEGAM, 2022 [47]	Fatigue	If fatigue is primarily unexplained, screening questions should be used to identify depression or an anxiety disorder.	✓	A, LoE: 1a	Own developed questionnaire/screening tools (e.g. PHQ-9, BDI-II, **two questions**)	NR	83/88/92
Leitlinien-programm Onkologie, 2023 [54]	Cancer	All cancer patients should be screened for psychosocial stress.	✓	Consensus-based recommendation	Screening tools (e.g. **DT, HADS, FBK**, PHQ-9)	As early as possible in approproate intervals; when the patient's disease status changes	92/90/96
		Particularly in the case of persistent pain, severe physical symptoms or fatigue, psychological stress and the presence of a mental disorder should be clarified.	✓	A, LoE: 1b			
BÄK, 2023 [45]	Chronic heart failure	Patients with chronic heart failure should be asked about psychosocial stress and psychological/psychosomatic comorbidity in a medical consultation after diagnosis and repeatedly during the course of the disease. Standardised questionnaires can be used to record psychosocial stress and psychological/psychosomatic comorbidity	✓	Strong positive recommendation	Screening tools (e.g. two questions, HADS, PHQ-9)	After diagnosis and repeatedly during the course of the disease	89/94/100
DEGAM, 2023 [48]	Multimorbidity	To determine the burden of the illnesses (disease burden), the extent to which the health problems affect their daily lives should be discussed with patients with multimorbidity. The following should be addressed ■ **Mental health**, ■ Interactions of health problems, ■ the impact of the burden of disease on well-being and ■ quality of life.	✓	Evidence-based recommendation (A)	NR	NR	92/91/100
		In patients with multimorbidity, psychological factors and comorbidities such as anxiety, **depression**, and chronic pain, as well as their treatment, should already be assessed and documented during the initial medical history.	✓	Consensus-based recommendation	NR	NR	
DGPPN, 2023 [50]	Dementia	We propose to assess symptoms of depression in people with mild cognitive impairment or dementia in a standardised way using clinical interviews and questionnaires.	✓	Weak positive recommendation (B)	Screening tools (e.g. CSDD, GDS, HDRS)	NR	94/94/100
DDG, 2023 [46]	Diabetes type 1	All people with type 1 diabetes should be examined regularly, at least once a year and on an ad hoc basis (e.g. in critical phases of the disease such as the development of secondary diseases) for the presence of depression and other psychological comorbidities (e.g. anxiety or eating disorders, cognitive impairments).	✓	B	2-Question test, WHO-5, PHQ-9, ADS	regularly, at least once a year and on an ad hoc basis (e.g. in critical phases of illness such as the development of secondary diseases)	94/96/100

Guideline	Target population	Recommendations		GoR	Method	Interval	Quality (%)
Teede, 2023 [69]	Polycystic ovary syndrome (PCOS)	Healthcare professionals should be aware of the high prevalence of moderate to severe depressive symptoms and depression in adults and adolescents with PCOS and should screen for depression in all adults and adolescents with PCOS, using regionally validated screening tools.	✓	strong recommendation, high quality of evidence	Regionally validated screening tools	No optimal interval. Pragmatic approach: at diagnosis with repeat screening based on clinical judgement, risk factors, comorbidities and life events, including the perinatal period.	100/100/100
Robinson, 2023 [62]	Diabetes	Individuals with diabetes, as well as the parents or caregivers of youth with diabetes, should be screened when newly diagnosed, as well as regularly afterwards, for diabetes-related psychological distress and psychiatric disorders using validated self-report questionnaires or clinical interviews.	✓	Grade C, Level 3	Diabetes specific screening tools (PAID, DDS) Screening tools (PHQ-9, CES-D, BDI)	when newly diagnosed, as well as regularly afterwards	28/67/50
	Older people with diabetes	Older people with diabetes should be screened for major depressive disorder and offered psychotherapy options, such as cognitive behaviour therapy, to improve physical health parameters, such as body weight, systolic blood pressure, glycemic management, and diabetes distress.	✓	Grade B, Level 2			

Abbreviations: 2SLGBTQI+ – Two-Spirit, lesbian, gay, bisexual, transgender, queer, questioning, intersex; ADS – general depression scale [Allgemeine Depressionsskala]; BÄK – German Medical Association [Bundesärztekammer]; BDI(-II) – Beck Depression Inventory (revision); CES-D – Center for Epidemiologic Studies Depression Scale; CSDD – Cornell Scale for Depression in Dementia; DASS – Depression Anxiety Stress Scales; DDG – German Diabetes Society [Deutsche Diabetes Gesellschaft]; DDS – Diabetes Distress Scales; DEGAM – German Society of General Practice and Family Medicine [Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin]; DGPPN – German Association for Psychiatry and Psychotherapy [Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde]; DGVS – German Society for Digestive and Metabolic Diseases [Deutsche Gesellschaft für Gastroenterologie, Verdauungs- und Stoffwechselkrankheiten]; DMI-10/-18 – Depression self-report questionnaire; EPDS – Edinburgh Postnatal Depression Scale; GDS – Geriatric Depression Scale; GoR – grade of recommendation; GP – General practitioner; GPP – good practice point; HADS(-D) – Hospital Anxiety and Depression Scale; HDRS – Hamilton Depression Rating Scale; IBS – irritable bowel syndrome; K10 – Kessler Psychological Distress Scale; K6 – Kessler 6 Mental Health Scale; LoE – level of evidence; MDD – major depressive disorder; NA – not applicable; NICE – National Institute for Health and Care Excellence; NR – not reported; PAID – Problem Areas in Diabetes Scale; PCOS – Polycystic ovary syndrome; PHQ(-9/-D) – Patient Health Questionnaire; PHQ-2 – 2-item Patient Health Questionnaire; RACGP – Royal Australian College of General Practitioners; Sphere-12 – 12-item Somatic and Psychological HEalth REport; USPSTF – US Preventive Services Task Force; WHO-5 – World Health Organisation (Five) Well-Being Index

Symbols: ✓recommendations in support; ✗recommendations against; ~recommendations neither in support nor against

Tools: explicitly recommended screening tools in **bold**

3.1.3 Anxiety screening recommendations and evidence

2 SRs zum Screening auf Angststörungen: 1 SR zu Allgemeinbevölkerung, 1 SR zu jugendlichen Mädchen und Frauen,

beide mit niedrigem RoB

We identified two SRs on screening for anxiety disorder [35, 39]. Both were published by US institutions. The SR from Nelson was commissioned by the Women's Preventive Services Initiative [39] and aimed to evaluate evidence on the effectiveness of screening for anxiety disorders, the harms of screening, the accuracy of screening tools and the effectiveness and harms of treatment. The focus was on adolescent girls and adult women. The purpose of the SR was to inform the development of new screening recommendations[5]. The SR published by the USPSTF [35] reviewed the benefits and harms of screening for anxiety disorders in the general adult population, serving as the basis for the USPSTF guideline recommendation on screening for anxiety disorders [57]. Both SRs were evaluated as having a low RoB (Table 3-5).

13 LL zum Screening auf Angststörungen; 3 für Allgemeinbevölkerung & 10 für spezifische Erkrankungen

Additionally, we identified recommendations for anxiety screening in 13 guidelines. Of these, three guidelines gave recommendations for the general population [57, 65, 67], and ten guidelines for specific disease populations [44-49, 54, 62, 68, 69]. As with the guidelines included for depression screening, the same guideline received a score below 30% in the second domain (Stakeholder Involvement) [62], while all other guidelines received scores above 30% in all domains (Table 3-6).

Summary of evidence from the systematic reviews

Inclusion criteria and included studies

1 SR mit RCTs & prospektiven Kohortenstudien

Nelson 2020 planned to include RCTs, large (>100 participants) prospective cohort studies, diagnostic accuracy studies, and SRs that enrolled at least 50% female participants who were not already diagnosed with anxiety disorders. Studies that used screening methods applicable to primary care settings in the US (e.g., brief self-report or clinician-administered questionnaires) were eligible. Studies that compared screening with usual care and reported clinical outcomes (e.g., symptoms, function, quality of life) were considered [39]. The USPSTF review by O'Connor 2023 [35] defined five key questions, of which the first one focused on the effectiveness of the screening itself: "Do anxiety screening programmes in primary care or comparable settings result in improved health outcomes (e.g., decreased anxiety symptoms, improved functioning and QoL) in adults?" A sub-question was if sending screening test results to providers (with or without additional care management supports) results in improved health outcomes. Furthermore, in their third key question, O'Connor 2023 focused on the potential harms of screening: "What are the harms associated with screening for anxiety in primary care or comparable settings in adults?". For the first and the third key questions, the authors aimed to include RCTs investigating the benefits or harms of anxiety screening programmes for adult primary care patients. Screening programmes were defined as efforts to screen all eligible members of a defined group on the assumption that a positive screening result would lead to clinical action. Control groups were participants who were not screened for anxiety or whose screening test results were not given to their primary care clinician.

1 SR mit 5 Fragestellungen, Frage 1 & 3 zur Effektivität & Risiken von Screening

Einschluss von RCTs

[5] The corresponding guideline was identified but excluded because methodological quality criteria were not met.

For the effectiveness of anxiety screening, none to very few studies were included: The SR from Nelson 2020 [39] did not identify any studies for the effectiveness or harms of anxiety screening of adolescent girls and adult women. The SR from O'Connor 2023 [35] included two RCTs (n=918) on the effectiveness of anxiety screening in the general population. Both SRs, however, additionally included several studies for the accuracy of screening tools and the benefits and harms of psychological and pharmacological treatment of anxiety disorders (see Table 3-5): For the accuracy of screening tools, 33 primary studies and two SRs were included for the anxiety screening for adolescent girls and adult women [39] and ten studies for a general anxiety screening [35]. Regarding the effectiveness of treatment, Nelson 2020 identified five SRs (with a total of 246 RCTs) for cognitive behavioural therapy (CBT) and three SRs (with a total of 126 RCTs) for medication [39]. O'Connor 2023 included 24 RCTs and eight SRs for the benefits of psychological treatment and two RCTs and ten SRs for the benefits of pharmacological treatment [35]. Finally, for harms of treatment, one SR (25 RCTs) for CBT and 3 SRs (106 RCTs) for medication were included in Nelson 2020 [39], and 3 RCTs, 8 SRs and 2 case-control studies for harms of pharmacological treatment in O'Connor 2023 [35].

1 SR (2020): keine Studien identifiziert

1 SR (2023): 2 RCTs (n=918) eingeschlossen

zusätzlich Inklusion von Studien zur Testgenauigkeit von Screeningtools & zur Effektivität der Behandlung in beiden SRs

SR results

Regarding anxiety screening for adolescent girls and adult women, no evidence was available regarding our pre-defined PICO outcomes mortality, morbidity, health-related quality of life (HRQoL), general and social functioning and screening risks [39]. Regarding anxiety screening of the general population, two RCTs with a total of 918 participants were identified. Both RCTs found no group differences in anxiety or general mental health symptom severity at 13 to 22 weeks of follow-up. The strength of evidence was categorised as insufficient. The authors did not identify studies reporting on the harms of anxiety screening, and the two RCTs included for benefits of screening did not indicate harmful impact. For the other outcomes (mortality, HRQoL, general and social functioning), no evidence was available [35].

keine Studien zum Screening von Frauen …

& 2 RCTs zum Screening in der Allgemeinbevölkerung ohne Gruppendifferenz der Angstsymptome nach 13-22 Wochen

Both SRs included studies on the accuracy of screening and the benefits and harms of treatment. They concluded that there are screening tools available that have acceptable accuracy in detecting anxiety disorders and that people with anxiety disorders can benefit from effective treatment options, such as medication and cognitive behavioural therapy. However, both SRs stated that the evidence for anxiety screening programmes was insufficient (for general screening [35]) or lacking (for screening of adolescent girls and women [39]).

valide Tools und effektive Behandlungsoptionen vorhanden, aber unzureichende Evidenz für Screening auf Angststörungen

Table 3-5: Systematic reviews of effectiveness of anxiety screening

Author, year	Included studies on effectiveness and harms of screening	PICO outcomes	Other included studies	Conclusion of SR	Quality assessment
Nelson, 2020 [39]	0 studies	**Mortality:** no evidence **Morbidity:** no evidence **Health-related quality of life (HRQoL):** no evidence **General and social functioning:** no evidence **Screening risks:** no evidence	**Accuracy of screening:** 33 studies, 2 SRs (with a total of 171 studies) **Effectiveness of treatment:** CBT: 5 SRs (246 RCTs) Medication: 3 SRs (126 RCTs) **Harms of treatment:** CBT: 1 SR (25 RCTs) Medication: 3 SRs (106 RCTs)	In conclusion, studies support a strong evidence base of moderate to highly accurate instruments for screening for anxiety that are applicable to clinical practices serving adolescent girls and adult women, including pregnant or postpartum women. Brief instruments with as few as 2 questions are as accurate as longer instruments and are particularly suitable for routine screening in primary care settings. Once identified, women with anxiety may benefit from CBT with or without pharmacologic therapies, depending on severity of symptoms and preferences. Anti-anxiety medications, such as SSRIs and SNRIs, have proven effectiveness in RCTs, are widely used, are generally well tolerated, and are also effective for depression, which often accompanies anxiety or can develop subsequently. Although trials of the overall effectiveness of screening for anxiety disorders are lacking, studies of the accuracy of screening methods and effectiveness and harms of treatment provide evidence supporting essential steps in the clinical pathway.	Low RoB
O'Connor, 2023b [35]	2 RCTs	**Mortality:** no evidence **Morbidity:** 2 RCTs (n=918); no group differences in anxiety or general mental health symptom severity at 13 to 22 weeks of follow-up; insufficient strength of evidence **HRQoL:** no evidence **General and social functioning:** no evidence **Screening risks:** No studies reported on harms of screening for anxiety; Studies included for benefits of screening (2 RCTs, n=918) did not show a pattern of results indicating harmful impact	**Accuracy of screening:** 10 studies **Benefits of treatment:** Psychological: 24 RCTs, 8 SRs Pharmacological: 2 RCTs, 10 SRs **Harms of treatment:** Psychological: 0 Pharmacological: 3 RCTs, 8 SRs, 2 case-control	Evidence was insufficient to draw conclusions about the benefits or harms of anxiety screening programmes. However, clear evidence exists that treatment for anxiety is beneficial, and more limited evidence indicates that some anxiety screening instruments have acceptable accuracy to detect generalized anxiety disorder. Evidence indicated that treatment for anxiety disorders is effective, including in populations with social anxiety disorder, panic disorder, or generalized anxiety disorder and in mixed populations with any of these anxiety disorders and depression. Effectiveness with these mixed populations is important to consider, since anxiety and depressive disorders often co-occur.	Low RoB

Abbreviations: CBT – cognitive behavioural therapy; HRQoL – health-related quality of life; RCT – randomized controlled trial; RoB – Ris of Bias; SNRI – serotonin-norepinephrine reuptake inhibitors; SR – systematic review; SSRI – selective serotonin reuptake inhibitors.

Summary of guideline recommendations

We identified 13 guidelines that include recommendations for anxiety disorder screening. Three guidelines give recommendations for the general population [57, 65, 67], whereas ten guidelines focus on specific disease populations [44-49, 54, 62, 68, 69] (see Table 3-6).

3 LL zur Allgemeinbevölkerung & 10 LL zu spezifischen Erkrankungen

General population

For the general population, the recommendations are contradictory: Both the National Institute for Health and Care Excellence (NICE) and the Royal Australian College of General Practitioners (RACGP) recommend being alert to possible anxiety disorders and to consider asking the person about feelings of anxiety [65, 67]. According to the RACGP, this is especially important in people with risk factors (such as a history of anxiety disorders, experiences of trauma or adverse childhood events). A general population screening for anxiety, however, is not recommended by the RACGP [67]. The USPSTF recommends screening for anxiety disorders in adults until the age of 64 years, whereas the evidence for anxiety screening in older adults is insufficient to assess the balance of benefits and harms [57]. Information on the screening interval is not provided by these three guidelines. The USPSTF recommends a pragmatic approach, which includes screening adults who have not been screened previously and considering risk factors, comorbidities, and life events using clinical judgment [57].

Screening der Allgemeinbevölkerung in 2/3 LL empfohlen,

3. LL empfiehlt Screening bei Personen mit Risikofaktoren

Disease populations

The ten guidelines for specific disease populations focus on people with the following conditions:

- Diabetes [46, 62]
- Irritable bowel syndrome (IBS) [49]
- Alcohol-use disorders [68]
- Chronic coronary heart disease [44]
- Fatigue [47]
- Chronic heart failure [45]
- Multimorbidity [48]
- Cancer [54]
- Polycystic ovary syndrome (PCOS) [69]

10 LL mit Screening Empfehlungen zu 9 spezifischen Erkrankungen …

All ten guidelines give recommendations in support of screening for anxiety disorders as a comorbidity of another condition. In some cases, this is not formulated as a clear recommendation for the screening of every patient, but rather as, e.g., assessment of comorbidities or mental health problems "such as anxiety" [46, 48, 49, 68]. Three guidelines did not specify the condition to screen for in their recommendations but recommended that patients should be assessed for psychological stress and comorbidity without further definition. However, they additionally mentioned specific applicable screening tools which are used for anxiety screening, and therefore, their recommendations were categorised as recommendations in favour of anxiety screening [45, 54, 62].

… in jeder LL wird ein Screening auf Angststörungen empfohlen, in 3 LL nur indirekt

Argumentation für das Screening: hohe Prävalenzen & höhere Risiken (z. B. Chronifizierung & schlechtere Progression) mit psychischen Erkrankungen

Some guidelines provide additional information on the rationale for the screening recommendations. For example, the guideline on chronic heart failure describes that patients with cardiac diseases often suffer from psychological or psychosomatic comorbidities: Approximately one-third of patients with heart failure experience anxiety symptoms, and about 15% suffer from anxiety disorders. However, clinical practice shows that these comorbidities can easily be overlooked because typical symptoms such as fatigue, loss of appetite, lack of motivation, etc., can also be caused by the heart failure itself. Additionally, patients rarely bring up these issues on their own, which makes it important to address them proactively [45]. According to the experts involved in the development of the psycho-oncological diagnostics guideline, early screening for the most common mental disorders can prevent the chronicity of psychological distress and is therefore recommended for patients with cancer to be carried out as early as the first contact with an outpatient or inpatient care facility [54]. According to the guideline on type 1 diabetes, there is evidence that anxiety disorders in type 1 diabetes are associated with poorer glycaemic control, increased glucose variability, impaired hypoglycaemia awareness, and a higher risk of microvascular and macrovascular complications. Excessive worries about complications of type 1 diabetes or concerns about the future can also trigger anxiety disorders [46].

Screening als Teil der Diagnose & danach regelmäßige Wiederholung

Regarding the time and interval, assessment should take place as part of diagnostics for the respective disease [44, 69], during the initial medical history [48, 49], or after diagnosis [45, 62]. It is recommended to repeat screening regularly during the course of the illness [45, 46, 62], e.g., once a year [46]. Three of the ten guidelines for specific disease populations did not provide any information on the timepoint or interval of screening [47, 54, 68].

Screening methods

genannte Screeningmethoden:

Screening methods that were recommended or mentioned by the guidelines include:

- The use of screening questions for medical history, e.g., "Over the last four weeks, have you felt significantly affected by nervous tension, anxiety, feeling out of balance or worries about many different things?" [44-47, 54]

  Screeningfragen als Teil der Anamnese

- Validated questionnaires, e.g.,

  validierte Screeningfragebögen

  - different versions of the Generalized Anxiety Disorder Scale (GAD-7, GAD-2) [44, 45, 47, 54, 57, 62, 65, 67]
  - Hospital Anxiety and Depression Scale (HADS) [44, 45, 49, 54, 62]
  - Patient Health Questionnaire (PHQ) [44, 46, 49]
- Specific questionnaires for certain disease populations:

  spezifische Fragebögen für bestimmte Erkrankungen

  - diabetes: Hypogylcemia Fear Survey (HFS), Fear of Diabetes Complications Questionnaire (FDCQ) [46]
  - cancer: Distress Thermometer (DT), German Questionnaire on the stress of cancer patients [*Fragebogen zur Belastung von Krebspatienten*, FBK-23, FBK-10] [54]

More information on the screening tools can be found in chapter 3.2.2.

Table 3-6: Anxiety screening recommendations in 13 evidence-based guidelines

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality (%)
General population						
NICE, 2020 [65]	Adults ≥ 18 years	Be alert to possible **anxiety disorders** (particularly in people with a past history of an anxiety disorder, possible somatic symptoms of an anxiety disorder or in those who have experienced a recent traumatic event). Consider asking the person about their feelings of anxiety and their ability to stop or control worry. ✓	Weak recommendation	2-item Generalized Anxiety Disorder scale (GAD-2)	NR	89/100/100
RACGP, 2021 [67]	General population	General population screening for **anxiety** is not recommended. ✗	Generally not recommended	GAD-2 scale	NR	53/61/46
	Patients aged 8–64 years, including pregnant and postpartum women (particularly in people with a history of an anxiety disorder, possible somatic symptoms of an anxiety disorder, in those who have experienced traumatic or adverse childhood events or in those with insomnia)	Be alert to possible **anxiety disorders**. ✓	Practice point			
		Consider asking the person (aged 18–64 years) about their feelings of **anxiety**, and their ability to stop or control the worry. ✓	Conditionally recommended			
USPSTF, 2023a [57]	Adults ≤64 years, including pregnant and postpartum persons	The USPSTF recommends screening for **anxiety disorders** in adults (64 years or younger), including pregnant and postpartum persons. ✓	B	Brief screening tools: GAD scale, Edinburgh Postnatal Depression Scale (EPDS) anxiety subscale, Geriatric Anxiety Scale (GAS), Geriatric Anxiety Inventory (GAI)	no evidence on optimal frequency of screening identified; a pragmatic approach might include screening adults who have not been screened previously and using clinical judgment while considering risk factors, comorbid conditions, and life events to determine if additional screening of patients at increased risk is warranted	78/97/79
	Older adults (≥65 years)	**The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for anxiety disorders in older adults.** ~	**I statement**	**NA**	**NR**	

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality (%)
Disease population						
DGVS, 2021 [49]	Irritable bowel syndrome (IBS)	In patients with IBS, psychological factors and comorbidities such as **anxiety** and depression should already be assessed and documented during the initial medical history. ✓	B	Validated questionnaires: german versions of Hospital Anxiety and Depression Scale (HADS-D) and Patient Health Questionnaire (PHQ-D)	During the initial medical history, interval NR	94/81/92
Haber, 2021 [68]	Alcohol-use disorders	Assessment for mental health problems, such as **anxiety**, depressive symptoms and suicidal risk, should be routine, including mental state examination. Referral for further specialist assessment may be needed if significant psychiatric problems are suspected. ✓	Good Practice Point (GPP)	Kessler 10 Symptom Scale (K10) or briefer 6 item version (K6) to screen for comorbid mental disorders in people presenting for alcohol use disorders	NR	78/42/50
BÄK, 2022b [44]	Chronic coronary heart disease	The likelihood of the presence of another prognostically relevant mental disorder (**anxiety disorder**, post-traumatic stress disorder, schizophrenia, bipolar disorder) or a psychosocial risk constellation (low socioeconomic status, social isolation, lack of social support, occupational or familial stress) should be assessed using appropriate medical history questions or questionnaires. ✓	conditional positive recommendation	*Generalised anxiety disorder:* Screening questions for medical history: "Do you feel nervous or anxious? Do you often worry about things more than other people do? Do you feel constantly worried and unable to control it?" Questionnaires: Anxiety subscales of the HADS or the PHQ (GAD-7) *Panic disorder:* Screening questions for medical history: "Do you experience sudden attacks that cause intense fear or panic, accompanied by symptoms such as rapid heartbeat, trembling, sweating, shortness of breath, fear of dying, etc.?" Questionnaires: Panic items from the PHQ-D	As part of diagnostics; interval NR	94/92/100
DEGAM, 2022 [47]	Fatigue	In cases of primarily unexplained fatigue, screening questions should be used to identify whether depression or an **anxiety disorder** is present. ✓	A	Medical history questionnaire or validated questionnaires: GAD-2 or GAD-7; questions such as "Over the last four weeks, have you felt significantly affected by nervous tension, anxiety, feeling out of balance or worries about many different things?"; "Have you had an anxiety attack (sudden feeling of fear or panic) during the last four weeks?"	NR	83/88/92

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality (%)
BÄK, 2023 [45]	Chronic heart failure	Patients with chronic heart failure should be asked about psychosocial stress and **psychological/psychosomatic comorbidity**. ✓ Standardised questionnaires can be used to record psychosocial stress and psychological/psychosomatic comorbidity.	Strong positive recommendation	Screening questions for medical history: "Do you feel nervous or anxious? Do you often worry about things more than other people do? Do you feel constantly worried and unable to control it?" Questionnaires: Anxiety subscales of the HADS or the PHQ (GAD-7)	After diagnosis as well as repeatedly during the course of the illness	89/94/100
DDG, 2023 [46]	Diabetes type 1	All individuals with type 1 diabetes should be regularly assessed, at least once a year and as needed (e.g., during critical illness phases such as the development of complications), for the presence of depression and **other psychological comorbidities** (e.g., **anxiety** or eating disorders, cognitive impairments). ✓	B	During the medical consultation or using questionnaires, e.g., PHQ-D, Hypoglycemia Fear Survey (HFS), Fear of Diabetes Complications Questionnaire (FDCQ)	Regularly; at least once a year and as needed	94/96/100
DEGAM, 2023 [48]	Multimorbidity	To determine the burden of disease, patients with multimorbidity should discuss to what extent their health problems affect their daily lives. The topics to be addressed include: ■ **Mental health**, ■ Interactions of health problems, ■ Effects of disease burden on well-being, and ■ Quality of life. ✓	Evidence-based recommendation (A)	NR	NR	92/91/100
		In patients with multimorbidity, psychological factors and comorbidities such as **anxiety**, depression, and chronic pain, as well as their treatment, should already be assessed and documented during the initial medical history. ✓	Consensus-based recommendation	NR	During the initial medical history; interval NR	
Leitlinien-programm Onkologie, 2023 [54]	Cancer	All cancer patients should receive screening for **psychosocial distress**. ✓	Consensus-based recommendation	Questionnaires such as **HADS, GAD-7**, Distress Thermometer (DT); German Questionnaire on the stress of cancer patients [Fragebogen zur Belastung von Krebspatienten, FBK-23, FBK-10] Interview on subjective psychosocial support needs Clinical screening questions such as "How much have you been affected by nervousness or anxiety in the past two weeks?"	NR	92/90/96
		Particularly in cases of persistent pain, severe physical symptom burden, or fatigue, psychological distress and the presence of a **psychological disorder** should be evaluated. ✓	A			

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality (%)
Robinson, 2023 [62]	Diabetes	✓ Individuals with diabetes, as well as the parents or caregivers of youth with diabetes, should be screened when newly diagnosed, as well as regularly afterwards, for **diabetes-related psychological distress and psychiatric disorders** using validated self-report questionnaires or clinical interviews.	C	e.g., GAD-7, HADS	When newly diagnosed, as well as regularly afterwards	28/67/50
Teede, 2023 [69]	Polycystic ovary syndrome (PCOS)	✓ Healthcare professionals should be aware of the high prevalence of moderate to severe **anxiety symptoms and anxiety disorders** in adults and should screen for anxiety in all adults with PCOS.	Strong recommendation	Regionally validated tools	Optimal interval for anxiety and depression screening not known; pragmatic approach could include screening at diagnosis with repeat screening based on clinical judgement, risk factors, comorbidities and life events	100/100/100

Abbreviations: BÄK – German Medical Association [Bundesärztekammer]; DDG – German Diabetes Society [Deutsche Diabetes Gesellschaft]; DEGAM – German Society of General Practice and Family Medicine [Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin]; DGVS – German Society for Digestive and Metabolic Diseases [Deutsche Gesellschaft für Gastroenterologie, Verdauungs- und Stoffwechselkrankheiten]; GAD – Generalized Anxiety Disorder scale; GoR – grade of recommendation; HADS – Hospital Anxiety and Depression Scale; IBS – irritable bowel syndrome; NICE – National Institute for Health and Care Excellence; NA – not applicable; NR – not reported; PCOS – Polycystic ovary syndrome; PHQ – Patient Health Questionnaire; RACGP – Royal Australian College of General Practitioners; USPSTF – US Preventive Services Task Force;

Symbols: ✓recommendations in support; ✗recommendations against; ~recommendations neither in support nor against

Tools: explicitly recommended screening tools in **bold**

3.1.4 Substance use screening recommendations and evidence

1 SR zum Screening auf Alkoholkonsum & 1 SR zu Screening auf Drogenkonsum

Two SRs were identified on the effectiveness of screening for substance use disorders. Both SRs were commissioned by the USPSTF with the aim of informing updated recommendations on the effectiveness and harms of screening and counselling for harmful alcohol use [38] and for the effectiveness and harms of screening and interventions for harmful drug use [37] in the general population. Both SRs had a low RoB (Table 3-7 and Table 3-8).

11 LL mit Empfehlungen zum Screening auf Substanzmissbrauch

8 zu Alkohol, 3 zu Rauchen, 2 zu Drogenkonsum & 1 zu Medikamentenmissbrauch

In addition, eleven guidelines with recommendations on screening for substance use disorders were identified [51-53, 55, 59, 60, 62-64, 67, 68]. Of these, eight addressed screening for alcohol use disorders, with seven guidelines focusing on the general population [52, 59, 60, 63, 64, 67, 68] and one guideline focusing on people with diabetes types 1 and 2 [62]. Additionally, three guidelines addressed screening for smoking in the general population [53, 63, 67]. Two further guidelines addressed screening for harmful drug use [55, 63], and one guideline addressed screening for use of medications [51] in the general population. Two guidelines addressing alcohol use were evaluated to have a domain score below 30% in the second domain (Stakeholder Involvement) [62] and in the third domain (Rigour of Development) [68]. All other substance use guidelines had higher scores across all domains (Table 3-9, Table 3-10, Table 3-11, Table 3-12).

Summary of evidence from the systematic reviews

beide SRs:

Einschluss von RCTs & NRCTs, Vergleich von Screening mit üblicher Behandlung

zusätzliche Inklusion von Genauigkeitsstudien & Studien zur Effektivität der Behandlungsoptionen

Both USPSTF SRs defined five key questions, addressing the effectiveness of screening in the first key question and the harms of screening in the third. In addition, they both evaluated the accuracy of available screening tools, as well as evidence on the effectiveness and harms of interventions for the respective disorder in adolescents and adults, including pregnant and postpartum women. The SR from 2018 [38] addressing screening for harmful alcohol use planned on including RCTs and NRCTs with an eligible control group for the key questions regarding the effectiveness and harms of screening. They further specified a minimum follow-up time of six months for the benefits of screening interventions with no minimum set for harms of screening. Trials had to compare screening programmes with usual care or an unscreened control group. For the SR addressing screening for harmful drug use from 2020 [37], the authors planned to include RCTs and NRCTs comparing screened individuals with unscreened individuals or usual care for the questions addressing the effectiveness and harms of screening.

SR zum Screening auf ungesunden Alkoholkonsum: keine Studien zum Screening identifiziert; jedoch existieren genaue Screeninginstrumente & effektive Behandlungen

The SR for the effectiveness of screening for harmful alcohol use did not identify any evidence for our predefined PICO outcomes (mortality, morbidity, HRQoL, general and social functioning and screening risks) [38]. The authors further included studies on the accuracy of screening instruments (n=45 studies) and on the benefits (n=68 RCTs) and harms (n=6 RCTs) of interventions to reduce alcohol consumption. They concluded that although there is no direct evidence of the benefits of alcohol screening programmes, various tools exist for the detection of harmful alcohol use that are efficient for the primary care setting and interventions to reduce harmful alcohol use are associated with more benefits than harms.

SR zum Screening auf Drogenmissbrauch:

keine Studien zum Screening identifiziert, jedoch existieren genaue Screeninginstrumente & effektive Behandlungen

The second SR addressing screening for drug use in primary care did not identify any studies addressing our specified PICO outcomes either [37]. As in the other SR, they included studies on the diagnostic accuracy of screening tools (n=28 studies) and the benefits and harms of psychological (benefits: n=52; harms: n=4) as well as pharmacological (benefits: n=20; harms: n=15) interventions for drug use. They concluded that there are acceptable tools for detecting drug use disorders in the general population and that there are effective treatment options. However, there was also evidence that treatments were more effective in treatment-seeking than in screened individuals, more effective for cannabis use than for other drugs, and stronger for longer term interventions lasting six to twelve months.

Table 3-7: Systematic review of effectiveness of alcohol use screening

Author, year	Included studies on effectiveness/harms of screening	PICO outcomes	Other included studies	Main results & interpretation	Quality assessment
O'Connor, 2018 [38]	0 studies	**Mortality:** no evidence **Morbidity:** no evidence **Health-related quality of life:** no evidence **General and social functioning:** no evidence **Screening risks:** no evidence	**Total**: 113 studies **Accuracy screening**: 45 diagnostic accuracy studies **Benefits of intervention**: 68 RCTs **Harms of intervention**: 6 RCTs	No evidence was found for screening programs to reduce unhealthy alcohol use or improve health, compared with usual care without screening. Multiple screening instruments are available that can detect unhealthy alcohol use with reasonable accuracy and that require 1 or 2 minutes to administer. Among adults, screening instruments feasible for use in primary care are available that can effectively identify people with unhealthy alcohol use, and counseling interventions in those who screen positive are associated with reductions in unhealthy alcohol use. There was no evidence that these interventions have unintended harmful effects.	Low RoB

Abbreviations: RCT – Randomised controlled trial; RoB – Risk of Bias

Table 3-8: Systematic review of effectiveness of drug use screening

Author, year	Included studies on effectiveness/harms of screening	PICO outcomes	Other included studies	Main results & interpretation	Quality assessment
Patnode, 2020 [37]	0 studies	**Mortality:** no evidence **Morbidity:** no evidence **Health-related quality of life:** no evidence **General and social functioning:** no evidence **Screening risks:** no evidence	**Total:** 99 studies **Accuracy of screening:** 28 studies **Benefits of interventions:** Psychosocial: 52 Pharmacological: 20 **Harms of interventions:** Psychological: 4 Pharmacological: 15	Several screening instruments with acceptable sensitivity and specificity are available to screen for drug use, although there is no evidence on the benefits or harms of screening. Pharmacotherapy and psychosocial interventions are effective at improving drug use outcomes, but evidence of effectiveness remains primarily derived from trials conducted in treatment-seeking populations. Based on interventions results: Effects were generally greater in treatment-seeking populations than in screen-detected populations, stronger for cannabis use than other drug use outcomes, stronger for shorter-term (3- to 4-month) than longer-term (6- to 12-month) outcomes, and stronger for more intensive interventions vs brief interventions.	Low RoB

Abbreviation: RoB – Risk of Bias

Summary of guideline recommendations

Recommendations for harmful alcohol consumption

8/8 LL empfehlen Screening auf Alkoholmissbrauch

Screening mit Tools wie z. B. AUDIT

empfohlene Screeningintervalle zwischen jährlich und alle 3-5 Jahre

1 LL zu Screening bei Personen mit Diabetes

All eight included guidelines addressing screening for alcohol use disorders recommended screening. For the seven guidelines addressing the general population, the guidelines further specified screening in people who potentially misuse alcohol [64], asymptomatic (low-risk) people [67], older adults [68] and people experiencing disadvantages due to, e.g. their racial background, social status or gender identity [63]. Most guidelines proposed screening with a screening tool such as AUDIT or AUDIT-C (e.g. [52, 59, 64]). Further guidelines also proposed asking directly for alcohol consumption as a first step and screening afterwards with a brief screening tool [60, 68]. The guidelines varied in the proposed screening intervals. While one guideline did not specify any screening interval [64], the others suggested annual screening intervals [59, 60], screening every two years [67] to screening every three to five years [63]. One guideline [68] did not specify a screening interval for the general population but suggested that older people be screened regularly and at least once a year. Finally, it was also proposed that people be screened during general health checks [52]. A final guideline recommended screening people with diabetes type 1 or 2 for potential misuse of alcohol [62]. The guideline also proposed screening with a screening tool, more specifically AUDIT-C, and suggested beginning with screening when the individual is diagnosed with diabetes, as well as regularly afterwards.

Recommendations for smoking

3/3 LL empfehlen Screening auf Tabakmissbrauch

starke Variation bei vorgeschlagenen Intervallen, von z. B. bei jeder Möglichkeit bis alle 3-5 Jahre

All three identified guidelines addressing screening for smoking recommended screening in the general population [53, 67], one guideline specifying the screening for people experiencing disadvantages [63]. Apart from smoking in general, guidelines specified tobacco use [63] and nicotine vaping [67] as factors to screen for. Instead of screening tools, the proposed screening method consists of asking the patient about their smoking status [53, 67]. As for the suggested intervals, the guideline recommendations varied widely from suggesting screening at every opportunity starting from the age of 10 [67], screening new patients and in regular intervals as warranted [53] and screening patients every three to five years [63]. No guideline suggesting the screening for smoking in specific disease populations was identified.

Recommendations for harmful drug use

2/2 LL empfehlen Screening auf Drogenmissbrauch, 1 in der Allgemeinbevölkerung & 1 bei sozial benachteiligten Personen

Two identified guidelines stated recommendations regarding drug use screening in the general population [55, 63]. While one guideline recommended screening in all adults above the age of 18 years [55], the second guideline recommended screening for drug use in people who experience disadvantages (e.g., people with low income, indigenous people, racialised people, people with functional impairments or people that identify as 2SLGBTQI+[6]) [63]. Proposed screening tools were NIDA, ASSIST or TAPS [55] and while both

[6] "*Acronym used by the Government of Canada to refer to the Canadian community. 2S: at the front, recognizes Two-Spirit people as the first 2SLGBTQI+ communities; L: Lesbian; G: Gay; B: Bisexual; T: Transgender; Q: Queer; I: Intersex, considers sex characteristics beyond sexual orientation, gender identity and gender expression; +: is inclusive of people who identify as part of sexual and gender diverse communities, who use additional terminologies.*" Reference: https://www.canada.ca/en/women-gender-equality/free-to-be-me/2slgbtqi-plus-glossary.html (cited: 06.09.2024)

guidelines mentioned a lack of evidence to be able to derive an optimal screening interval, a screening interval of every three to five years was suggested, as this interval was deemed to be practicable, reasonable and feasible [63]. No guidelines recommending screening for drug use in specific disease populations were identified.

Recommendations for medication use

1 LL zu Screening auf Medikamentenmissbrauch: kein geeignetes Screening-Tool

Finally, one identified guideline provided information for the screening of medication use in the general population [51]. Screening was not directly recommended for or against; rather, it was pointed out that currently, there are no reliable screening tools to detect patients who suffer from medication use. Accordingly, the authors did not suggest any screening method or any screening interval.

Table 3-9: Alcohol use screening recommendations in eight evidence-based guidelines

Guideline	Target population	Recommendations		GoR	Method	Interval	Quality
General population							
BCCSU, 2019 [59]	General adult population	All adult and youth patients should be screened annually for alcohol use above low-risk limits.	✓	Quality of evidence: moderate, Strength of recommendation: strong	Screening tools (e.g. AUDIT, AUDIT-C, CAGE, SASQ)	Anually	78/78/63
NICE, 2019 [64]	General adult population/people who potentially misuse alcohol	Make sure that assessment of risk is part of any assessment, that it informs the development of the overall care plan, and that it covers risk to self (including unplanned withdrawal, suicidality and neglect) and risk to others. Staff working in services provided and funded by the NHS who care for people who potentially misuse alcohol should be competent to identify harmful drinking (high-risk drinking) and alcohol dependence. They should be competent to initially assess the need for an intervention or, if they are not competent, they should refer people who misuse alcohol to a service that can provide an assessment of need. Use formal assessment tools to assess the nature and severity of alcohol misuse, including the: ■ AUDIT for identification and as a routine outcome measure ■ SADQ or LDQ for severity of dependence ■ Clinical Institute Withdrawal Assessment of Alcohol Scale, revised (CIWA-Ar) for severity of withdrawal ■ APQ for the nature and extent of the problems arising from alcohol misuse.	✓	strong ("make sure", "use")	Screening tools (e.g. **AUDIT, SADQ, LDQ**)	NR	92/95/83
DGPPN, 2020a [52]	All patients	Questionnaires should be used to screen for risky alcohol consumption, harmful alcohol use or alcohol dependence.	✓	A (LoE: 1a)	Screening tools (e.g. **AUDIT, AUDIT-C**)	No evidence, screening during health checks	89/83/100
		For screening/case finding, AUDIT or AUDIT-C should be offered to all patients in all medical and psychosocial settings.		consensus-based recommendation			
RACGP, 2021 [67]	Asymptomatic (low-risk) people	Screen adults aged ≥18 years, including pregnant women, for unhealthy alcohol use. The Alcohol Use Disorder Identification Test – Consumption (AUDIT-C) tool can be used to assess this.	✓	conditional	Screening tools (AUDIT-C)	Every 2 years	53/61/46
Haber, 2021 [68]	Primary care patients	Screening for unhealthy alcohol use and appropriate intervention systems should be widely implemented in general practice.	✓	A	Questioning "Ask about consumption", screening tools (e.g. **AUDIT**, AUDIT-C, AUDIT-3, NIAAA, ASSIST)	NR	78/42/50
	Older adults	Regardless of the health care setting, screening for harmful alcohol use should be undertaken for all new patients over 50 years old and reviewed at regular intervals at least once a year with a view to document for use and misuse and associated complications.	✓	D		regular intervalls, at least once a year	
		For older adults who present with unexplained physical and psychological symptomatology and inconsistencies or contradictions in the presentation, as well as the major life events, should prompt re-screening for, or assessment of alcohol and other substance use.	✓	D			

Guideline	Target population	Recommendations		GoR	Method	Interval	Quality
Wood, 2023 [60]	Adult and youth patients	All adult and youth patients should be screened routinely for alcohol use above low risk	✓	strong, moderate-certainty evidence	Questioning, initial brief screening tools (**SASQ,** for youth: NIAAA), full screen (AUDIT or **AUDIT-C**)	Annually (but insufficient evidence for optimal interval)	89/88/83
Persaud, 2023 [63]	people experiencing disadvantages (specific groups known to experience health disparities, including people with a low income, Indigenous people, racialized people, people who identify as 2SLGBTQI+ and people with functional limitations)	We recommend screening for harmful alcohol use together with appropriate supports in adolescents and adults experiencing disadvantages. Rationale: We did not identify clinical trials of screening. The accuracy of screening and the effectiveness of treatments indicate that the benefits of screening, including the promotion of health equity, clearly outweigh the harms (therefore, the recommendation is strong). Alcohol use often begins during adolescence.	✓	strong, moderate-certainty evidence	NR	Every 3-5 years (but insufficient evidence for optimal interval)	67/81/58
Disease Population							
Robinson, 2023 [62]	Diabetes type 1 and 2	People with diabetes may benefit from being screened for potential misuse of alcohol.	✓	Grade D, Level 4	Screening tool (AUDIT-C)	When newly diagnosed and regularly afterwards	28/67/50

Abbreviations: APQ – Alcohol Problems Questionnaire; ASSIST – Alcohol, Smoking and Substance Involvement Screening Test; AUDIT – Alcohol Use Disorders Identification Test; AUDIT-3 – single question AUDIT screener; AUDIT-C – AUDIT-Consumption; AWMF – Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften; BCCSU – British Columbia Centre on Substance Use; CAGE – Cut-down, Annoyed, Guilty, Eye Opener Questionnaire ; CIWA-Ar – Clinical Institute Withdrawal Assessment of Alcohol Scale, revised; GoR – grade of recommendation; LDQ – Leeds Dependence Questionnaire; LoE – level of evidence; NIAAA – National Institute on Alcohol Abuse and Alcoholism; NICE – National Institute for Health and Care Excellence; NIDA – National Institute on Drug Abuse Quick Screen; NR – not reported; RACGP – Royal Australian College of General Practitioners; SADQ – Severity of Alcohol Dependence Questionnaire; SASQ – Single Alcohol Screening Question; USPSTF – US Preventive Services Task Force

Symbols: ✓recommendations in support; ✗recommendations against; ~recommendations neither in support nor against

Tools: explicitly recommended screening tools in **bold**

Table 3-10: Drug use screening recommendations in two evidence-based guidelines

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality
General population						
USPSTF, 2020 [55]	adults ≥ 18 years	The USPSTF recommends screening by asking questions about unhealthy drug use in adults 18 years or older. Screening should be implemented when services for accurate diagnosis, effective treatment, and appropriate care can be offered or referred. (Screening refers to asking questions about unhealthy drug use, not testing biological specimens.) ✓	B	Screening tools (e.g. NIDA, ASSIST, TAPS)	NR (insufficient evidence)	72/100/75
Persaud, 2023 [63]	people experiencing disadvantages (specific groups known to experience health disparities, including people with a low income, Indigenous people, racialized people, people who identify as 2SLGBTQI+ and people with functional limitations)	We recommend screening for substance use together with appropriate supports in adolescents and adults experiencing disadvantages. ✓ Rationale: We did not identify clinical trials of screening. The accuracy of screening and the effectiveness of treatments indicate that the benefits of screening, including the promotion of health equity, clearly outweigh the harms (therefore, the recommendation is strong). Substance use often begins during adolescence.	strong, moderate-certainty evidence	NR	Every 3-5 years (but insufficient evidence for optimal interval)	67/81/58

Abbreviations: 2SLGBTQI+ – Two-Spirit, lesbian, gay, bisexual, transgender, queer, questioning, intersex; ASSIST – Alcohol, Smoking and Substance Involvement Screening Test; GoR – grade of recommendation; NIDA – National Institute on Drug Abuse Quick Screen; NR – not reported; TAPS – Tobacco, Alcohol, Prescription Medication, and Other Substance Use Questionnaire; USPSTF – US Preventive Services Task Force

Symbols: ✓ recommendations in support; ✗ recommendations against; ~ recommendations neither in support nor against

Tools: explicitly recommended screening tools in **bold**

Table 3-11: Smoking screening recommendations in three evidence-based guidelines

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality
General population						
DGPPN, 2021 [53]	all patients	All patients should be asked about their consumption of tobacco or e-cigarettes or related products at the first contact (suitable for a comprehensive medical history) and at regular intervals during the course of treatment. ✓	A (LoE: 1a)	Questioning	New patients; regular intervalls as warranted	83/77/100
RACGP, 2021 [67]	asymptomatic (low-risk) people	Ask patients whether they are currently smoking and document their smoking status. Also ask about and document the use of vaping products. ✓	recommended [strong]	Questioning	at every opportunity starting from the age of 10 years	53/61/46
Persaud, 2023 [63]	people experiencing disadvantages	We recommend screening for tobacco use together with appropriate supports in adolescents and adults experiencing disadvantages. ✓ Rationale: We did not identify clinical trials screening for tobacco use. Screening can identify people who would benefit from effective interventions that could address the substantial burden of tobacco use. The accuracy of screening and the effectiveness of treatments indicate that the benefits of screening, including the promotion of health equity, clearly outweigh the harms (therefore, the recommendation is strong). Tobacco use often begins during adolescence; thus, so too should screening.	strong, moderate-certainty evidence	NR	Every 3-5 years	67/81/58

Abbreviations: AWMF- Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften; GoR – grade of recommendation; LoE – level of evidence; NR – not reported; RACGP – Royal Australian College of General Practitioners

Symbols: ✓recommendations in support; ✗recommendations against; ~recommendations neither in support nor against

Table 3-12: Medication screening recommendations in one evidence-based guideline

Guideline	Target population	Recommendations	GoR	Method	Interval	Quality
General population						
DGPPN, 2020 [51]	All patients	At present, no specific screening tools can be recommended for the risk, development or presence of dependence on medically indicated drugs. ✗	0 (open)	NA	NA	89/83/100

Abbreviations: DGPPN – Deutsche Gesellschaft für Psychiatrie und Psychotherapie, Psychosomatik und Nervenheilkunde e.V.; GoR – grade of recommendation; NA – not applicable

Symbols: ✓recommendations in support; ✗recommendations against; ~recommendations neither in support nor against

3.2 Screening methods and their characteristics

In primary care, various options to identify mental health disorders such as depression, anxiety disorders, or substance use in patients are available. The following four options could be identified in the included reviews and guidelines:

4 Methoden zur Erkennung von psychischen Erkrankungen:

- The identification of people with certain risk factors or from certain risk groups and the subsequent use of screening questionnaires for these patients;
- The assessment via a short question regarding their current mental wellbeing and the subsequent use of screening questionnaires for patients with worrying answers;
- The use of screening questionnaires for all patients;
- The testing of biological markers.

Risikopersonen identifizieren → Screening-Fragebögen;

alle Pat. kurz befragen → bei Bedarf Screening-Fragebögen;

Screening-Fragebögen für alle Patient*innen;

Testen von biologischen Markern

3.2.1 Description of different options to identify depression, anxiety and substance use

As some guidelines indicate, screening patients with certain risk factors or from certain risk groups (see Table 3-13) may be particularly beneficial [14, 43, 51, 52, 55-57, 61, 64, 65]. For example, to recognise depressive disorders, the National Care Guideline Unipolar Depression [*Nationale Versorgungsleitlinie für Unipolare Depression*] [14] recommends: 'In the care of patients who belong to a risk group, measures for the early recognition of depressive disorders should be offered at contacts in general practitioner care and general hospitals.'

Screening von Risikopersonen in Primärversorgung von einigen LL empfohlen (Risikofaktoren siehe Tabelle)

Observing the patient is a simple, if not entirely reliable, way of identification. For instance, the National Care Guideline Unipolar Depression [*Nationale Versorgungsleitlinie für Unipolare Depression*] [14] recommends that the presence of a depressive disorder or the presence of other symptoms of a depressive disorder should be actively explored if certain complaints or characteristics are present. Certain signs may be physical exhaustion, sleep disorders, and memory disorders, as well as neglect of personal hygiene and clothing or slurred speech patterns. In the case of alcohol use, according to Haber et al. [68], a physical examination of the patient for intoxication (e.g. cirrhosis of the liver and pancreatitis) or signs of harmful use of alcohol (e.g. the smell of alcohol on breath, facial flushing, parotid swelling, hypertension, flushing …) may indicate misuse. The presence of such signs already implies an advanced stage of the disease, yet they alone are not conclusive and their absence does not rule out the presence of harmful alcohol consumption [68].

psychische (Müdigkeit, Schlafstörungen …) und physische (Vernachlässigung der körperlichen Hygiene …) Auffälligkeiten als mögliche Anzeichen für psychische Erkrankungen

A more reliable option to screen for substance use is to examine the biological markers of excessive consumption [52, 68]. Biological markers for excessive alcohol use include direct measures of alcohol (in breath or blood) and measures of various alcohol metabolites. In addition, there exist indirect indices such as liver enzymes activity, the levels of carbohydrate-deficient transferrin, the mean erythrocyte cell volume, and others [68].

biologische Marker zur Identifizierung von Substanzmissbrauch

Another option for detecting mental health problems or substance use involves assessing all patient's mental state or their consumption of addictive substances (e.g. cigarettes). This can be done by simply asking patients about their current state of mind or substance use [14, 53, 63, 68]. If the patient's responses are concerning, validated, structured instruments should subsequently be used for a more detailed screening [60, 64]. These screening instruments will be described in more detail in the next chapter 3.2.2.

alle Pat. nach psychischer Gesundheit und Substanzgebrauch befragen, bei beunruhigenden Antworten Screening-Fragebogen anwenden

Table 3-13: Risk factors for depression, anxiety and substance use[7]

Risk	Screening for	Reference
Personal and hereditary factors		
Previous depressive episodes	Depression	[14]
Family history of mental disorders	Depression, anxiety	[14, 57, 61]
Suicide attempts in the person's own past or family history	Depression	[14]
Genetic predisposition	Harmful alcohol use	[52]
Female sex	Depression	[61]
Male sex	Harmful drug use	[51, 55]
Being aged 18 to 25	Harmful drug use	[55]
Periods of hormonal changes (e.g. puberty, pregnancy, postpartum, and perimenopause)	Depression	[61]
Sociodemographic factors (widowed or divorced)	Anxiety, depression	[57, 61]
Lifestyle and pre-existing health risks		
Sedentary lifestyle/screen time	Depression	[61]
Insomnia, night shift work	Depression	[61]
Chronic, somatic and psychiatric comorbidities	Depression, anxiety, harmful drug use	[14, 43, 51, 55, 56, 61, 64, 65]
Existing risk factors (e.g. smoking, obesity, high blood pressure)	Harmful alcohol use	[52]
Drug and alcohol use		
Substance use or substance dependence	Depression, anxiety, harmful drug use	[14, 51, 55, 57, 61]
Use of stimulants in close environment (e.g. family, circle of friends)	Opioid misuse	[51, 55]
Early life environment, traumata and stress		
Current or recent stressful life events	Depression, anxiety	[14, 57, 61]
Lack of social support	Depression	[14]
Social factors	Harmful alcohol use	[52]
Psychosocial factors (e.g. adversity in childhood or history of physical or sexual abuse)	Depression, anxiety, harmful drug use	[55, 56, 61]
Peer victimization/bullying/cyberbullying	Depression	[61]

7 Categorisation of risk factors modified from https://www.healthdirect.gov.au/mental-illness (cited: 11.09.2024)

3.2.2 Tools for identification of depression, anxiety and substance use

The most important characteristics of screening instruments for primary care are high validity and reliability, brevity, ease of administration, being cost-free, and easy accessibility [20, 70]. Deciding on the number and type of conditions to screen for might require data on the mental health needs of the patient population served by the practice [20, 71]. Other considerations in selecting appropriate tools include clinical time constraints [20, 71, 72], workflow, and whether the tool will be administered by the provider or self-administered [20].

Numerous different tools are available for identifying behavioural health disorders. Some of the most common screening instruments to detect depression, anxiety disorders or substance use disorders are described below.

Identified screening tools

Overall, we identified 101 screening instruments, of which 17 matched our inclusion criteria and were subsequently described in more detail. All instruments are questionnaires that were mentioned in the guidelines and SRs with varying frequency (Figure 3-1 provides an overview of the total number of SRs and guidelines that mentioned the respective instruments).

The number of tools available for individual mental disorders varied (see Figure 3-2. A categorisation of the questionnaires according to the clinical picture and a brief description of the respective tools can be found below.

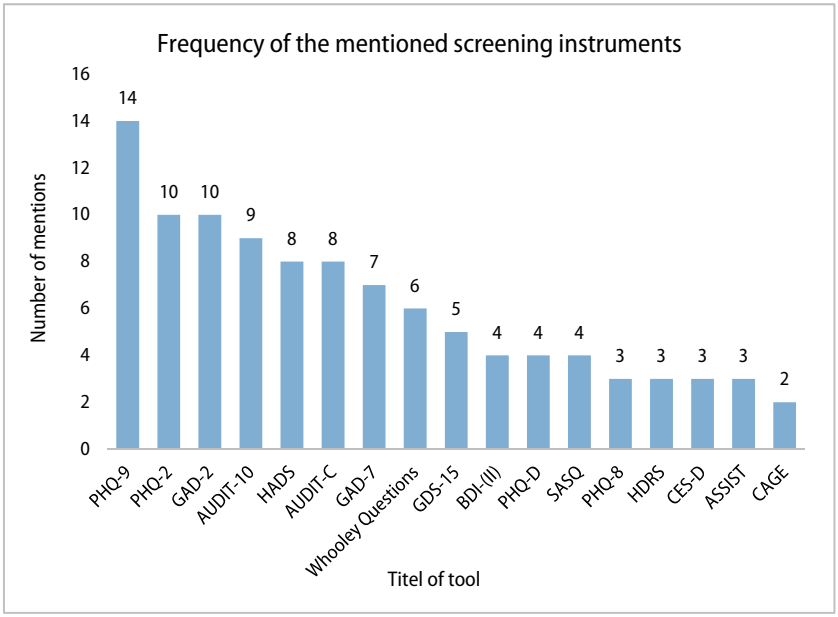

Figure 3-1: Frequency of the tools mentioned in the systematic reviews and guidelines

Depression

Most of the selected tools – eight in total – were developed for screening depression:

8 Fragebögen für Depression:

- **Patient Health Questionnaire-9 (PHQ-9)** — **Gesundheitsfragebogen für Patient*innen-9 (PHQ-9)**
  - This scale simply scores each of the nine DSM-IV criteria.
  - There are other versions of the PHQ available, with a different number of questions (e.g. PHQ-15 or PHQ-2).
- **Patient Health Questionnaire-8 (PHQ-8)** — **Gesundheitsfragebogen für Patient*innen-8 (PHQ-8)**
  - The ninth question from the PHQ-9 – assessing suicidal or self-injurious thoughts – was omitted for the PHQ-8, as research indicates that the deletion has only a minor effect on scoring because thoughts of self-harm are uncommon in the general population.
- **Patient Health Questionnaire-2 (PHQ-2)** — **Gesundheitsfragebogen für Patient*innen-2 (PHQ-2)**
  - The PHQ-2 comprises the first two items of the PHQ-9.
- **Whooley questions** — **Whooley Fragen**
  - Very similar to the PHQ-2.
  - A questionnaire with three questions is also available.
- **Beck Depression Inventory (BDI-II)** — **Beck-Depressions-Inventar (BDI-II)**
  - The BDI has been developed in different forms, including computerized forms, a card form and the 13-item short form.
- **Hamilton Depression Rating Scale (HAM-D/HDRS)** — **Hamilton Depressionsskala (HAM-D/HDRS)**
  - HAM-D/HDRS is a provider-administered scale assessing depression symptom severity as defined by DSM-IV.
- **Centre for Epidemiological Studies-Depression Scale (CES-D)** — **Allgemeine Depressionsskala (CES-D)**
  - The CES-D scale was developed to enable the recording of depressive symptoms, especially in large-scale epidemiological studies.
- **Geriatric Depression Scale short form (GDS-15)** — **Geriatrische Depressionsskala-15 (GDS-15)**
  - The GDS-15 was developed as a basic screening measure for depression in older adults.
  - It has been extensively used in community, acute and long-term care settings.

Anxiety disorders

Two tools were identified for anxiety screening:

2 Instrumente für Angststörungen:

- **General Anxiety Disorder Scale-7 (GAD-7)** — **Generalisierte-Angststörungs-Skala-7 (GAD-7)**
  - The GAD-7 investigates how often the patient has been bothered by seven different symptoms of anxiety.
  - Validated in a general German population.
- **General Anxiety Disorder Scale-2 (GAD-2)** — **Generalisierte-Angststörungs-Skala-2 (GAD-2)**
  - A shorter version of GAD-7 uses only the first two questions, which represent the core anxiety symptoms.

Anxiety disorders & Depression

One instrument can be used to screen for anxiety and depression at the same time:

1 Tool für Depression und Angststörungen:

Hospital Anxiety and Depression Scale (HADS)

- **Hospital Anxiety and Depression Scale (HADS)**
  - The HADS is a brief measure of anxiety and depression.
  - It contains an Anxiety subscale (HADS-A) and a Depression subscale (HADS-D), each containing seven specific questions dealing with anxiety and depression, respectively.

Substance Use Disorders

Most of the questionnaires, four in total, identified for substance misuse screen for harmful *alcohol use*:

4 Fragebögen für Alkoholmissbrauch:

Selbsttest Alkoholabhängigkeit-10 (AUDIT-10)

- **Alcohol Use Disorders Identification Test-10 (AUDIT-10)**
  - The AUDIT questionnaire was developed on behalf of the WHO and is also recommended by the WHO.
  - It identifies alcohol problems in primary care and emergency room settings.

Selbsttest Alkoholabhängigkeit-Kurzform (AUDIT-C)

- **Alcohol Use Disorders Identification Test short form (AUDIT-C)**
  - The AUDIT-C is a modified version of the 10-question AUDIT instrument.
  - It is a brief alcohol screening instrument that reliably identifies persons who are hazardous drinkers or have active alcohol use disorders.

Single Alcohol Screening Question (SASQ)

- **Single Alcohol Screening Question (SASQ)**
  - The National Institute on Alcohol Abuse and Alcoholism (NIAAA) SASQ comprises one question to assess how many times in the past year people had, 4 for women, 5 for men, or more drinks in a day.
  - It is designed for use in a primary care setting.

Cut, Annoyed, Guilty, and Eye Questionnaire (CAGE)

- **Cut, Annoyed, Guilty, and Eye Questionnaire (CAGE)**
  - The CAGE is widely used in primary care.
  - It is more effective for identifying alcohol dependence than harmful alcohol use or binge drinking.

Only one of the instruments screens for the consumption of *different substances*:

1 Instrument für Substanzmissbrauch:

Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)

- **Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)**
  - It can identify a range of problems associated with substance use, including acute intoxication, regular use, dependent or 'high-risk' use and injecting behaviour.

Depression, Anxiety & Substance use disorders

Finally, one questionnaire also screens for all three health conditions:

1 Tool für alle 3 Erkrankungen:

Gesundheitsfragebogen für Patient*innen-Deutsche Version (PHQ-D)

- **Patient Health Questionnaire German version (PHQ-D)**
  - The PHQ-D can be used in its complete or short form as a psychodiagnostic instrument in clinical practice and the context of research questions.
  - It is suitable for initial diagnosis and assessing the course of mental disorders.

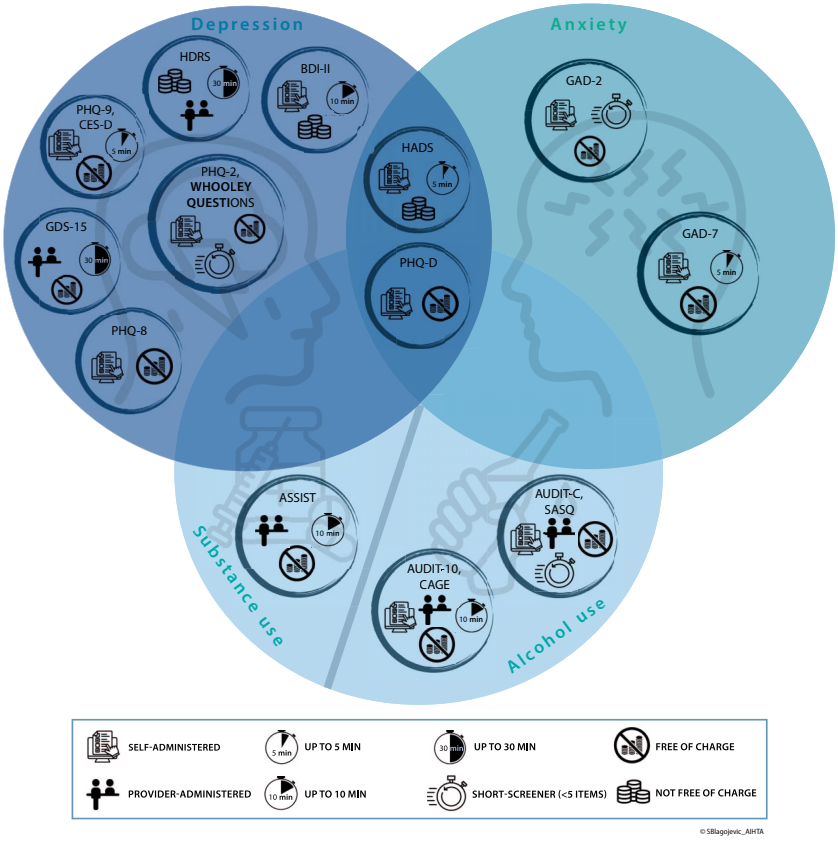

Figure 3-2: Graphical display of the number and classification of tools assessing the corresponding health condition

General information about the tools

Großteil der Fragebögen für Allgemeinbevölkerung entwickelt und in mehreren Versionen sowie auf Deutsch erhältlich

In the following section, a general overview of different parameters of the questionnaires is provided. The target group for all questionnaires is the general population, except for the GDS-15, which was developed specifically to screen for depression in the elderly. Most of the questionnaires (PHQ, GDS, GAD, CES-D, Whooley Questions, AUDIT, ASSIST) have different and adapted versions, some of which are, for example, longer or computerized. A German version is available for all tools except the SASQ.

Fragebögen berücksichtigen Symptome in unterschiedlichen Zeiträumen

The questionnaires assess different periods of symptom onset; six record the symptoms of the last two weeks (PHQ-9, PHQ-8, PHQ-2, BDI-II, GAD-7, GAD-2), three focus on the previous seven days (GDS-15, HADS, CES-D), and two address the last month (PHQ-D, Whooley Questions). One questionnaire each investigates excessive alcohol consumption over the last year (SASQ) and the use of substances over a lifetime and, more specifically, the last three months (ASSIST). No information about the symptom review period was found for four tools (AUDIT-10, AUDIT-C, HDRS, CAGE).

Dauer von <1 Min – 30 Min, abhängig von Fragebogenlänge

The screening instruments vary in length and the number of questions they contain. Six questionnaires are so-called short screeners with five or fewer items (SASQ, PHQ-2, Whooley Questions, GAD-2, AUDIT-C, CAGE), while others have up to 21 items (BDI-II, HDRS) or more (PHQ-D) (see Figure 3-3 for a graphical display). Depending on the length, it can take less than a minute to 20-30 minutes to answer the questions.

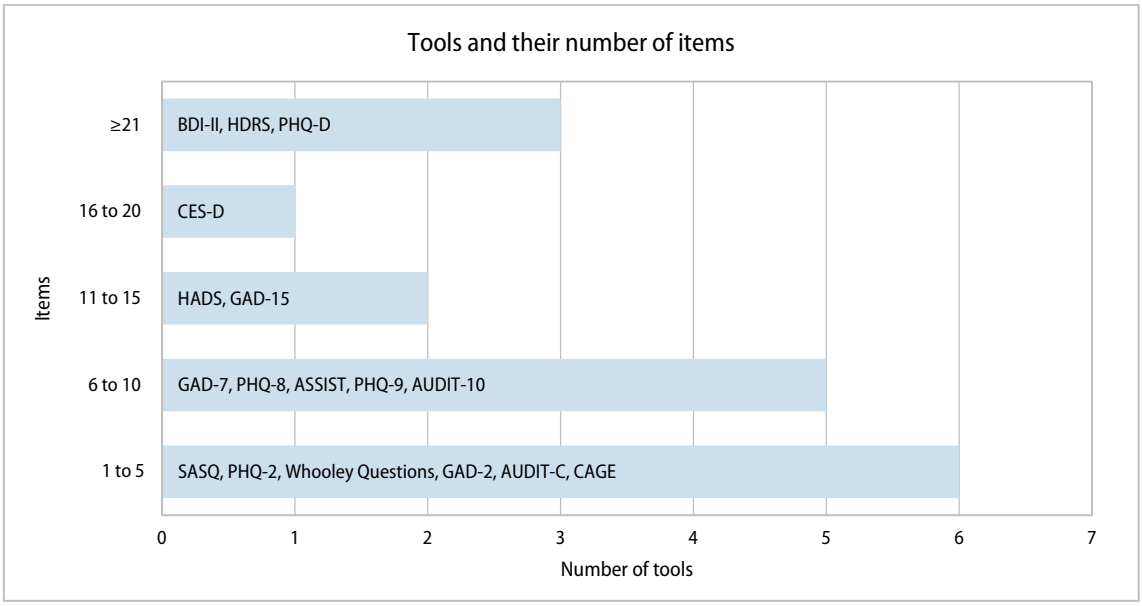

Figure 3-3: Questionnaires divided according to the number of items

häufigstes Antwortformat: Likert-Skala

The response format is usually a Likert-type scale (PHQ-2, GAD-2, AUDIT-C, GAD-7, PHQ-8, PHQ-9, AUDIT-10, HADS, CES-D, BDI-II, HDRS, PHQ-D). However, three questionnaires (Whooley Questions, GDS-15, CAGE) use questions with simple YES/NO responses and one questionnaire each uses a mix of Likert type scale and YES/NO questions (ASSIST) or an open response format (SASQ).

Punkteskalen zwischen 0-2 und 0-63

verschiedene Schwellenwerte

For tools evaluated with a score (PHQ-2, Whooley Questions, GDS-15, GAD-2, AUDIT-C, GAD-7, PHQ-8, PHQ-9, AUDIT-10, HADS, CES-D, BDI-II, HDRS, PHQ-D, CAGE), the range is between 0 to 2 and 0 to 63, depending on the number of questions. A severity threshold/risk threshold is available for all the questionnaires except for the SASQ; these are shown in Table 3-14.

Selbsttests, Screening durch medizinisches Personal oder Mischform

Self-administration is possible for most questionnaires (PHQ-9, PHQ-8, PHQ-2, BDI-II, CES-D, GAD-7, GAD-2, HADS, PHQ-D). Three tools are for self- and provider administration (Whooley Questions, AUDIT-C, CAGE, AUDIT-10), and the others require provider administration (HDRS, GDS-15, SASQ, ASSIST).

DSM-IV und ICD-10 Diagnosekriterien

The diagnostic criteria of the DSM-IV match eight of the questionnaires (PHQ-9, PHQ-8, PHQ-2, HDRS, GAD-7, GAD-2, AUDIT-10, AUDIT-C) and two (PHQ-D, GDS-15) comply with ICD-10 and DSM-IV criteria. There is no available information about the diagnostic criteria for the other five tools (ASSIST, SASQ, HADS, Whooley Questions, CES-D).

Großteil der Fragebögen frei zugänglich

Two of the questionnaires (HADS, BDI-II) are not free of charge and require purchase and a license, and all others are free of charge. However, there is a lack of information regarding the rights of use for some of the freely available tools.

A more detailed description of the individual tools is given in Table 3-14.

Table 3-14: General information about the identified tools

Tool name, Abbreviation	Symptom review period	Target Population	N of Items	Response format, Scaling response categories	Score Range, Severity thresholds/Risk thresholds	Administration type, Time	Costs, Rights of use	Ref
Depression								
Patient Health Questionnaire-9, PHQ-9	Past two weeks	General Population	9	Likert type scale: 0=Not at all 1=Several days 2=More than half the days 3=Nearly every day	0 to 27: <5: No depression or clinically unremarkable or remitted 5-9: Subthreshold to mild depression 10-14: Moderate depression 15-19: Pronounced depression 20-27: Severe depression	Self-administered, <5 min	Free of charge, the rights of use are not restricted	[14, 36, 73-76]
Patient Health Questionnaire-8, PHQ-8	Past two weeks	General Population	8	Likert type scale: 0=Not at all 1=Several days 2=More than half the days 3=Nearly every day	0 to 24: 0-4: No depressive symptoms 5-9: Mild depressive symptoms 10-14: Moderate depressive symptoms 15-19: Moderately severe symptoms 20 to 24: Severe symptoms	Self-administered, NI	Free of charge, the rights of use are not restricted	[77-79]
Patient Health Questionnaire-2, PHQ-2	Past two weeks	General Population	2	Likert type scale: 0=Not at all 1=Several days 2=More than half the days 3=Nearly every day	0 to 6: ≥3 MDD is likely	Self-administered, <2 min	Free of charge, the rights of use are not restricted	[80, 81] [82] [36, 76]
Whooley Questions	Past month	General Population	2	Yes/No: 0=No 1=Yes	0 to 2: "Yes" to one (or both) questions=positive test (requires further evaluation) "No" to both questions= negative test (not depressed)	Self-and provider-administered, 1 min	Free of charge, the rights of use are not restricted, available: https://whooleyquestions.ucsf.edu/	[81, 83-86]
Beck Depression Inventory, BDI-(II)	Past two weeks	General Population	21	Likert type scale: Answers to choose with different scores (0-3)	0 to 63: <14: None or minimal depression 14-19: Mild depressive syndrome 20-28: Moderate depressive syndrome ≥29: Severe depressive syndrome	Self-administered, 5-10 min	Not free of charge, can be purchased online, permission needed	[14, 74, 87-89]
Hamilton Depression Rating Scale, HDRS/HAM-D	NI	General Population	21	Likert type scale: Answers to choose with different scores (0-2 or 0-4)	For the first 17 questions: 0 to 52, For the first 17 questions: 0-7: Normal 8-13: Moderate Depression	Provider-administered, 20-30 min	Free of charge, NI	[74, 90-92]

Tool name, Abbreviation	Symptom review period	Target Population	N of Items	Response format, Scaling response categories	Score Range, Severity thresholds/Risk thresholds	Administration type, Time	Costs, Rights of use	Ref
HDRS/HAM-D *(continuation)*					19-22: Severe Depression ≥23: Very severe Depression			
Centre for Epidemiological Studies-Depression Scale, CES-D	Past seven days	General Population	20	Likert type scale: 0=Rarely or none of the time (less than 1 day) 1=Some or little of the time (1-2 days) 2=Moderately or much of the time (3-4 days) 3=Most or almost all the time (5-7 days)	0 to 60, ≥16 indicates a person at risk for clinical depression	Self-administered, 2-5 min	Free of charge, the rights of use are not restricted, available: http://cesd-r.com/	[93-95]
Geriatric Depression Scale (short form), GDS-15	Past week	Healthy, medically ill and mild to moderately cognitively impaired older adults	15	Yes/No, Of the 15 items, 10 indicate the presence of depression when answered positively, while the rest (question numbers 1, 5, 7, 11, 13) indicate depression when answered negatively.	0 to 15, 0-4: Normal 5-8: Mild depression 9-11: Moderate depression 12-15: Severe depression	Provider-administered, 5-7 min	Free of charge, NI	[14, 74, 96-98]
Anxiety disorders								
Generalized Anxiety Disorder Scale-7, GAD-7	Past two weeks	General Population	7	Likert type scale, 0=Not at all 1=Several days 2=More than half the days 3=Nearly every day	0 to 21, 0-4: Minimal anxiety 5-9: Mild anxiety 10-14: Moderate anxiety ≥15: Severe anxiety	Self-administered, <5 min	Free of charge, the rights of use are not restricted	[20, 35, 74, 99-101]
Generalized Anxiety Disorder Scale-2, GAD-2	Past two weeks	General Population	2	Likert type scale, 0=Not at all 1=Several days 2=More than half the days 3=Nearly every day	0 to 6, A score of 3 points is the preferred cut-off for needing further identifying evaluation.	Self-administered, <2 min	Free of charge, the rights of use are not restricted	[20, 35, 99, 101]
Depression & Anxiety								
Hospital Anxiety and Depression Scale, HADS	Past seven days	General Population	Combined 14 items: Anxiety (HADS-A) 7 items, Depression (HADS-D) 7 items	Likert type scale, 0=Only occasionally/never 1=From time to time, but not too often 2=Relatively often 3=Most of the time	0 to 40, ≤7: Normal range 8-10: 'Suspect', i.e. at least mild depressive disorder ≥11: Probable presence ('caseness') of the mood disorder	Self-administered, <5 min	Not free of charge, license required	[14, 20, 87, 102-105]

Tool name, Abbreviation	Symptom review period	Target Population	N of Items	Response format, Scaling response categories	Score Range, Severity thresholds/Risk thresholds	Administration type, Time	Costs, Rights of use	Ref
Alcohol use disorder								
Alcohol Use Disorders Identification Test, AUDIT-10	NI	General Population	10	Likert type scale: Scores for each question range from 0 to 4, with the first response for each question (e.g. never) scoring 0, the second (e.g. less than monthly) scoring 1, the third (e.g. monthly) scoring 2, the fourth (e.g. weekly) scoring 3, and the last response (e.g. daily or almost daily) scoring 4. For questions 9 and 10, which only have three responses, the scoring is 0, 2 and 4 (from left to right).	0 to 40, ≥8: harmful or hazardous drinking ≥13 (woman) and ≥15 (men): likely to indicate alcohol dependence	Self- and provider-administered, <10 min	Free of charge, the rights of use are not restricted	[20, 26, 106]
Alcohol Use Disorders Identification Test (short form), AUDIT-C	NI	General Population	3	Likert type scale: Scores for each question range from 0 to 4, with the first response for each question (e.g. never) scoring 0, the second (e.g. less than monthly) scoring 1, the third (e.g. monthly) scoring 2, the fourth (e.g. weekly) scoring 3, and the last response (e.g. daily or almost daily) scoring 4. For questions 9 and 10, which only have three responses, the scoring is 0, 2 and 4 (from left to right).	0 to 12, Men: score ≥4 is considered positive Woman: score ≥3 is considered positive The higher the score, the more likely the person's drinking is affecting his or her safety	Self- and provider-administered, 1-2 min	Free of charge, the rights of use are not restricted	[20, 26, 107-109]
Cut down, Annoyed, Guilty, and Eye-opener Questionnaire, CAGE	NI	General Population	4	Yes/No, 0=No 1= Yes	0 to 4, The higher the score the greater the indication of alcohol problems. A total score of 2 or greater is considered clinically significant.	Self- and provider-administered, <2 min	Free of charge, NI	[20, 68, 110]
Single Alcohol Screening Question, SASQ	Past Year	General Population	1	Open, a response of one or more warrants follow-up	No scored instrument, NA	Provider-administered, <1 min	Free of charge, the rights of use are not restricted	[20, 108, 111, 112]
Alcohol and substance use disorders								
Alcohol, Smoking, and Substance Involvement Screening Test, ASSIST	Lifetime use and specifically the past three months	General Population	8	Likert type scale, Yes/No: Different response cards for clients: e.g. last 3 months (ASSIST questions 2 to 5): 0=Never, 2=Once or twice, 3=Monthly,	0 to 39, Alcohol: 0-10=Lower risk 11-26=Moderate risk 27+=High risk	Provider-administered, 5-15 min depending on number of substances used	Free of charge, the rights of use are not restricted	[20, 113, 114]

Tool name, Abbreviation	Symptom review period	Target Population	N of Items	Response format, Scaling response categories	Score Range, Severity thresholds/Risk thresholds	Administration type, Time	Costs, Rights of use	Ref
ASSIST *(continuation)*				4=Weekly, 6=Daily or almost daily	All other substances: 0-3=Lower risk 4-26=Moderate risk 27+=Higher risk			
Depression, Anxiety & Substance Use Disorders								
Gesundheitsfrageb ogen für Patienten [Patient Health Questionnaire], PHQ-D	Last Month	General Population	16 categories with different numbers of questions	Likert type scale: Different scaling depending on the question category	NI, Somatoform syndrome: ≥ 3 of the questions 1a-m are marked "severely impaired", MMD: ≥ 5 of the questions 2a-i are answered with at least "on more than half of the days"; these also include question 2a or 2b, Other depressive syndroms: 2-4 of the questions 2a-i are answered with at least "on more than half of the days"; these also include question 2a or 2b, Panic syndrome: "YES" is marked for each of the questions 3a-d and four or more of the questions 4a-k are answered with "YES", Other anxiety syndroms: Question 5a and three or more of questions 5b-g are answered with "on more than half of the days", Alcohol syndrome: At least one of the questions 10a-e is answered with "YES".	Self-administered, NI	Free of charge, the rights of use are not restricted	[115, 116]

Abbreviations: ASSIST – Alcohol, Smoking, and Substance Involvement Screening Test; AUDIT – Alcohol Use Disorders Identification Test; BDI – Beck Depression Inventory; CESD – Center for Epidemiological Studies Depression Scale; CAGE – Cut down, Annoyed, Guilty, and Eye-opener; CI – Confidence interval; CIDI- Composite International Diagnostic Interview; DSM – Diagnostic and Statistical Manual of Mental Disorders; e.g. – exempli gratia; GAD – General Anxiety Disorder Scale; GDS – Geriatric Depression Scale; GHQ – General Health Questionnaire; HADS – Hospital Anxiety and Depression Scale; HDRS – Hamilton Depression Rating Scale; ICD – International Classification of Diseases; MDD – Major Depression Disorder; min – minutes; NI – no information; NIAAA – National Institute on Alcohol Abuse and Alcoholism; PHQ – Patient Health Questionnaire; SASQ – Single Alcohol Screening Question; SCID – Structured Clinical Interview for DSM Disorders;

Sensitivity & Specificity of the tools

The sensitivity and specificity data are mainly from studies conducted in primary care or similar settings, and most are from meta-analyses. The ten meta-analyses included between two and 48 studies, with varying numbers of participants, ranging from 1,115 to 11,703 [20, 35, 36, 86, 93, 97]. Further results from eleven single studies were used for specifying the sensitivity and specificity of different outcome measures. In the single studies, the number of participants ranges from 217 to 3,000 [20, 35, 89, 111, 116, 117]. In most of the studies, a gold standard was named, which was used as a comparison to the measured instrument. Semi-structured or standardised diagnostic interviews were the gold standards most used. Several outcome measures were collected, sometimes multiple ones within individual studies. A corresponding cut-off, at which sensitivity and specificity were measured, is available for almost every outcome. The sensitivity and specificity of the measured outcomes vary between the tools. For instance, the sensitivity for depression ranged from 66% (HADS) to 94% (BDI-II), and the specificity ranged from 65% (Whooley Questions) to 97% (HADS). For Major Depressive Disorder (MDD), sensitivity ranged from 85% (PHQ-9) to 99% (PHQ-8) and specificity from 67% (PHQ-2) to 96% (PHQ-8 & PHQ-D) across different questionnaires. In the case of general anxiety disorder, sensitivity ranged from 76% (GAD-2) to 79% (GAD-7), and specificity ranged from 88% (GAD-2) to 89% (GAD-7). Regarding harmful alcohol use, sensitivity ranged from 57% (PHQ-D) to 95% (AUDIT-10) and specificity from 75% (AUDIT-C) to 96% (PHQ-D). The sensitivity and specificity of all outcome measures are displayed in Table 3-15.

Großteil der Sensitivitäts- und Spezifitätsanalysen von Studien im Primärversorgungssektor

10 Meta-Analysen (1.115-11.703 Pat.) und 11 Einzelstudien (217-3.000 Pat.)

Depression:
Sensitivität: 66 %-94 %
Spezifität: 65 %-97 %

Generalisierte Angststörung:
Sensitivität: 76 %-79 %
Spezifität: 88 %-89 %

Alkoholmissbrauch:
Sensitivität: 57 %-95 %,
Spezifität: 75 %-96 %

Table 3-15: Sensitivity & specificity of the tools

Tool	N of Items	Population/Study type	Number of studies and patients (n)	Gold standard	Cutoff	Outcome measure	Sensitivity [95% CI]	Specificity [95% CI]	Ref
Depression									
PHQ-9	9	Primary care and comparable settings, meta-analysis	47 studies, n=11,234	Semi-structured diagnostic interview	≥10	MDD	85 [0.79-0.89]	85 [0.82-0.87]	[36]
PHQ-8	8	Primary care or comparable settings, meta-analysis	27 study, n=6,331	Semistructured diagnostic interview	≥10	MDD	88 [0.80-0.90]	86 [0.83-0.89]	[36]
PHQ-2	2	Primary care or comparable setting, meta-analysis	48 studies, n=11,703	Semistructured diagnostic interview	≥2	MDD	91 [0.88-0.94]	67 [0.64-0.71]	[36]
Whooley Questions	2	Primary care, meta-analysis	10 studies, n=4,618	Diagnostic interview	NA	Depression	95 [0.98-0.97]	65 [0.56-0.74]	[36, 86]
BDI-II	21	Adults in primary care, NA	1 study, n=340	NR	18	Depression	94 [NR]	92 [NR]	[89]
HDRS	21	Patients from different medical settings, mean value of ten different samples, NA	7 studies, n=NR	NR	12.6/13.5	Depression	76 [NR]	91 [NR]	[92]
CES-D	20	Adolescents and adults, meta-analysis	22 studies, n=NR	NR	≥16	Depression	87 [0.82-0.92]	70 [0.65-0.75]	[33, 93]
GDS-15	15	Elderly people, meta-analysis	30 studies, n=NR	NR	NR	Depression	86 [0.82-0.89]	79 [073-0.84]	[97]
Anxiety									
GAD-7	7	Primary care and comparable settings, meta-analysis	3 studies, n=2,272	NR	≥10	General anxiety disorder	79 [0.65-0.94]	89 [0.83-0.94]	[35]
			3 studies, n=1,357	NR	≥6	Any anxiety disorder	64 [0.46-0.82]	82 [0.78-0.87]	
			2 studies, n=1,115	NR	≥6	Panic disorder	85 [0.71-0.98]	71 [0.56-0.86]	
			1 study, n=965	NR	≥6	Social anxiety disorder	87 [0.75-0.94]	63 [0.60-0.66]	
GAD-2	2	Primary care and comparable settings, meta-analysis	2 studies, n=1,307	NR	≥3	General anxiety disorder	76 [0.68-0.85]	88 [0.87-0.88]	[35]
			2 studies, n=1,307	NR	≥2	Any anxiety disorder	74 [0.69-0.79]	74 [0.70-0.78]	
			2 studies, n=1,115	NR	≥2	Panic disorder	73 [0.34-1.0]	68 [0.57-0.79]	
			1 study, n=965	NR	≥2	Social anxiety disorder	85 [0.73-0.93]	62 [0.59-0.65]	
Depression & Anxiety									
HADS	14 items: Anxiety (HADS-A) 7 items, Depression (HADS-D) 7 items	NR, Meta-analysis	3 studies, n=NR	GHQ	≥8	Anxiety (HADS-A)	80 [NR]	80 [NR]	[20]
		Primary care patients, NA	1 study, n=217	CIS	≥9		66 [NR]	93 [NR]	
		NR, Meta-analysis	3 studies, n=NR	GHQ	≥8	Depression (HADS-D)	80 [NR]	80 [NR]	
		Primary care patients, NA	1 study, n=217	CIS	≥7		66 [NR]	97 [NR]	

Tool	N of Items	Population/Study type	Number of studies and patients (n)	Gold standard	Cutoff	Outcome measure	Sensitivity [95% CI]	Specificity [95% CI]	Ref
Alcohol Use Disorder									
AUDIT-10	10	Community physicians' offices, hospital-based clinics and community health centres, NA	1 study, n=1,888	NR	≥8	Hazardous alcohol use	97 [NR]	78 [NR]	[20]
					≥8	Harmful alcohol use	95 [NR]	85 [NR]	
AUDIT-C	3	Primary care sample, NA	1 study, 392 male and 927 female adults	Standardised interviews	≥4 for men;	DSM-IV Alcohol use disorders	88 [NR]	75 [NR]	[20]
					≥3 for women		87 [NR]	85 [NR]	
CAGE	4	Primary care patients	1 study, n=NR	NI	≥2	Alcohol-related disorders	84 [NR]	85 [NR]	[20]
SASQ	1	Primary care patients, NA	1 study, n=286	AUDIT-C and calendar method collection of drinking days to establish risky drinking	≥1	Unhealthy alcohol use	82 [0.73-0.89]	79 [0.73-0.84]	[111]
						Risky consumption amounts	74 [0.75-0.91]	78 [0.72-0.84]	
						Alcohol-related problems or disorders	84 [0.74-0.91]	75 [0.69-0.80]	
						Current alcohol use disorder	88 [0.73-0.89]	67 [0.61-0.72]	
Substance Use Disorders									
ASSIST	8	1/3 from speciality drug treatment settings and 2/3 from primary care settings in 7 countries around the world, NA	1 study, n=1,047	Independent Clinical Evaluation (ICE) and Mini-international Neuropsychiatric Interview (MINI)-Plus	>14.5	Global risk	80 [NR]	71 [NR]	[20, 117]
					>5.5	Alcohol	83 [NR]	79 [NR]	
					>1.5	Cannabis	91 [NR]	90 [NR]	
					>0.5	Cocaine	92 [NR]	94 [NR]	
					>0.5	ATS	97 [NR]	87 [NR]	
					>0.5	Sedatives	94 [NR]	91 [NR]	
					>0.5	Opioids	94 [NR]	96 [NR]	
					>6.5	Global illicit	88 [NR]	89 [NR]	
Depression, Anxiety & Substance Use									
PHQ-D	16 categories with different numbers of questions	General medical patients, NA	1 study, n=357	Structured Clinical Interview for DSM-IV (SKID-I)	NR	All mental disorders	77 [66-88]	83[78-87]	[116]
					≥11	MDD	95 [77-99]	86 [82-89]	
					≥8	Depressive disorders	85 [72-93]	76 [71-81]	
					NR	All anxiety disorders	67 [43-85]	94 [91-96]	
					NR	Panic disorder	73 [45-93]	98 [96-99]	
					NR	Alcohol abuse	57 [18-90]	96 [94-98]	

Abbreviations: ASSIST – Alcohol, Smoking, and Substance Involvement Screening Test; AUDIT – Alcohol Use Disorders Identification Test; BDI – Beck Depression Inventory; CESD – Center for Epidemiological Studies Depression Scale; CI – Confidence interval; CIDI- Composite International Diagnostic Interview; GAD – General Anxiety Disorder Scale; GDS – Geriatric Depression Scale; GHQ – General Health Questionnaire; HADS – Hospital Anxiety and Depression Scale; HDRS – Hamilton Depression Rating Scale; MDD – Major Depression Disorder; N – number of patients; NA – not applicable; NI – no information; NR – not reported; PHQ – Patient Health Questionnaire; SASQ – Single Alcohol Screening Question; SCID – Structured Clinical Interview for DSM Disorders

3.3 Implications of screening implementation

für maximalen Nutzen & minimalen Schaden muss ein Screening als ein organisiertes System aufgesetzt werden

erster Schritt: Definition der Ziele

To maximise potential benefit and minimise harms that might occur with the introduction of screening for mental disorders in primary care, the screening ought to be organised as a system. To set this system up, all components of it must be listed and plans should be made for how each step is to be established, funded and managed in the long term (see Figure 3-4). The different parts of a screening programme can be differentiated into areas that need to be organised at a local level, as well as areas that need to be organised at a regional or national level [17]. However, before planning a screening programme, the overall aim and specific screening objectives of the programme should be clearly defined in an official guidance document. Stating the aims of the programme will influence its overall design and how its effectiveness is evaluated [17, 118].

3.3.1 Health delivery process

zur Implementierung müssen u. a. die Zielgruppe definiert, alle Screeningschritte & Personalschulungen geplant, & Kommunikationskanäle etabliert werden

The introduction of a new screening programme is accompanied by organisational and cultural changes that require a clear definition of various steps for the implementation of the screening process, as well as possible barriers and possible (cultural) changes. Before starting to screen, a target population should be chosen and plans on how to invite or get access to this population should be made. Next, a detailed screening procedure with all possible follow-up steps should be defined, proper education and training of staff should be planned, cooperation and communication activities should be established, and monitoring systems for quality assurance should be organised.

Choosing and inviting the target population

Fokus dieses Berichts auf Screening im Rahmen der Primärversorgung

Screening kann sich auf Allgemeinbevölkerung (vgl. Vorsorge-untersuchung), oder Personen mit bestimmten Risikofaktoren beziehen

For this project we focused on screening of adults in the setting of primary care in general. For this case, the screening could be integrated into the Austrian periodic health examination or conducted during consultations with the primary care provider due to other reasons (e.g., acute physical illness). The screening could be targeted at the general population or focused on a higher-risk population. Different risk factors have been defined in various guidelines, and an overview is presented in Table 3-13. At the same time, while inviting and screening patients with an elevated mental health risk might lower the burden for the local screening staff and minimise false positives in comparison to a population-wide screening programme, recognition of mental health concerns in non-selected patients could be delayed or not recognised at all [119]. Some examples of possible definitions of a target population for both cases, the general population and high-risk patients, are presented below based on examples found in the literature:

- **General population**: „Adult patients in the primary care office not yet diagnosed with a mood disorder" [120]
- **High-risk patients**: "Primary care patients after the age of 18, without an active depression diagnosis and who are diagnosed with a chronic illness, e.g. diabetes, coronary artery disease or cancer." [121]
- **Patients with risk factors** (e.g., previous depressive episodes, family history, suicide attempts in own or family history, somatic and mental illnesses, substance use, current stressful life events, lack of social

support), **patient-reported complaints** (e.g., fatigue, sleep disorders, headache, appetite disorders, functional disorders of the heart and circulation/breathing/stomach and intestines, memory disorders) **or characteristics of appearance and behaviour** (e.g., neglect of personal hygiene and clothing, altered speech behaviour/gestures/facial expressions) [14]

je nach Definition der Zielpopulation, verschiedene Möglichkeiten der Einladung → lokale oder nationale Verwaltung

automatisiertes System oder Auswahl anhand von Risikofaktoren

Depending on how the target population for screening is chosen, different options for a screening invitation might be considered. While it would be possible to choose patients based on risk factors or information reported on an electronic medical record system [121], ideally, a computerised call and recall system should be in place that helps identify patients eligible for screening, invites them, records their results, sends reminders for follow-ups and provides information to be used in quality management of the screening programme [17]. Invitations can be handled by the primary care physician who is responsible for the individual patient, the respective health insurance of a patient, or invitations can be organised on a national level. Physicians and staff can also pre-screen patients based on risk-factors using checklists, which in turn can be either part of an electronic screening template or the patient's medical file [122]. Before screening, each patient should receive information and give their consent.

Definition eines Screeningintervalls: derzeit keine Evidenz für ein optimales Intervall

Further, a screening interval should be chosen. Based on the included guidelines, literature on an optimal screening interval is lacking and proposed intervals ranged between pragmatical screening approaches [57], yearly screening [46, 68] or screening every three to five years [63]. Defining an exact screening interval might be preferable as opposed to a pragmatic approach to simplify planning and organisation and help with the implementation of a screening programme. A manual tracking system that provides prompts for the chosen interval might be advisable to keep track of patients who need screening [123]. Such a tracking system might also be helpful to identify patients who have already gone through a screening or those that still need to be screened.

Screening process and patient flow

Screeningprozess mit allen Schritten soll im Detail beschrieben werden; hilfreich zur Planung & Orientierung

A standardised screening protocol serves as a starting point and orientation for individual practices. It involves defining every screening step and describing them in detail. Clear descriptions might help orient the staff conducting the screening and, therefore, increase screening numbers [124]. The screening process is generally made up of four steps: (1) Defining and inviting the target population, (2) screening the target population, (3) further assessing the individuals with a positive screening result, and finally, (4) providing treatment or intervention for those individuals who are diagnosed with the condition during the course of further assessment [17]. Importantly, in each step, some individuals might be incorrectly sorted out as not having a mental health issue due to the sensitivity and specificity of the chosen screening instrument.

Definition des Screeningprozesses kann zur Schätzung der Personenanzahl in jedem Schritt verwendet werden

Each of the steps depicted in the flow diagram should be considered in detail, and the numbers of individuals encountering the different screening steps and outcomes should be worked out for a screening period (the time between two screenings of the same individual) based on prevalences and test accuracy. These numbers can further be used for organisation and planning, as well as for communication strategies. The definition of the various screening steps with all possible consequences can further be used by physicians and staff as a guideline and for planning purposes, and it can be provided in a summary

form to patients, serving as a decision support and orientation in the various screening phases. Each screening step must be further planned out in an individual practice based on available infrastructure, workforce and technology [125]. Some examples of what needs to be considered for each screening step are outlined in the following paragraphs.

zu beachten bei der Wahl eines Screeningtests, u. a.:

After the invitation/offer or identification of a patient eligible for screening and after obtaining informed consent, screening can take place. As screening for mental disorders is done primarily through questionnaires, choosing the screening test(s) will be the first task. When choosing a screening test, multiple factors need to be considered:

- Does the instrument screen for one mental health condition or multiple mental health conditions? — **gescreente psychische Erkrankungen**
- How many items does the screening test have, and how long will it take to complete it? — **Anzahl der Items & Dauer**
- Can the test be self-administered, or does it need to be administered by staff, e.g. by the primary care physician? — **Art der Administration**
- In the case of self-administration, can the patient fill out the questionnaire at home prior to the appointment? — **Zeitpunkt der Administration**
- Is the screening instrument available in other languages that could be used for patients that are non-native speakers (e.g., refugees and migrants)? If yes, has the instrument be validated for the population in question? — **Verfügbarkeit in anderen Sprachen**
- How is the screening score calculated, and by whom? — **Berechnung des Ergebnisses**
- What is the proposed threshold for the screening test, and what is the sensitivity and specificity for that threshold? Are sensitivity and specificity or thresholds different for different populations? — **Schwellenwerte des Tests**

Schwellenwerte haben Einfluss auf Anzahl der positiv & negativ gescreenten Personen

Test and threshold choice will influence how many patients screen positive or negative and, in turn, might increase the workload [123]. An option to increase sensitivity and specificity as well as manage the time needed per patient would be to provide a two-step screening process by letting patients complete a shorter screening instrument (e.g. PHQ-2) and providing a longer screening test (e.g. PHQ-9) if the patient screens positive in the first step [120]. Ideally, to potentially improve screening rates, patients should have different options available to complete the screening. Tests can be administered verbally, which can be beneficial for patients with low literacy levels [120], through paper-pencil forms, or through technological solutions like mobile apps, telehealth, or web applications [126]. For patients who are not native speakers (e.g., migrants, refugees), screening must either be conducted verbally with the assistance of an interpreter who can translate questions and answers, or questionnaires must be provided in the patient's native language.

zweistufiges Screening mit kurzem & danach längerem Test möglich

nach dem Screening müssen weitere Schritte für Diagnose & Behandlung geplant werden

After screening, individuals who screened positive for a mental health issue should be further assessed. Here, it is important to define the time and the professionals responsible for the assessment. Physicians can choose to conduct an assessment right after a positive screening result or make an appointment for a further assessment. Defining a definite time point by which the assessment should have taken place can help as a decision support [121]. Some physicians might also choose to refer a patient to a specialist for further assessment, while others will conduct the assessment themselves. This is also the case for treating the patient after a positive assessment, for which physicians can again choose to treat the mental health issue themselves, depending on their skills and competences, or refer the patient to a specialist.

Diagnose & Behandlung durch Allgemeinmediziner*in oder Überweisung, je nach verfügbaren Kompetenzen

Treatment options should also be considered together with a patient based on their needs, resources and location [123]. Considerations should further include follow-up care, e.g. regular follow-up appointments.

The following are some examples from the literature on how screening procedures for mental disorders (in these examples, depression) could be implemented in a primary care practice with varying details:

Beispiele für verschiedene Screening Prozesse:

- The PHQ-2 is used to screen patients for depression. In case of a positive response to one of the two PHQ-2 questions, a more in-depth assessment is to be conducted. This in-depth assessment can happen during the same visit or within four weeks to establish a diagnosis and, if necessary, plan treatment [121].

  PHQ-2, bei positivem Ergebnis weiterführendes Assessment innerhalb von 4 Wochen

- Patients are handed the questionnaire at the reception/by an assistant to be completed in the waiting room or while waiting for the health care provider. Results are discussed with the provider during the examination. In case the patient is not finished with the questionnaire when the provider arrives, the provider prompts them to finish. If patients decline the completion, the provider can try to conduct the screening verbally following the questionnaire's (PHQ-9) format. After the exam, the questionnaire is handed to the administrative assistant, and the results are filled into the patient's electronic medical record [124].

  Ausfüllen des Fragebogens im Warteraum, Besprechung des Ergebnisses im Rahmen der Untersuchung

- A medical assistant (MA) administers the PHQ-2 verbally as the patient's vital signs are checked and enters the screening results in the patient's medical record. If the patient screens positive on the PHQ-2, the MA further provides a paper-pencil form of the PHQ-9, which is handed to the primary care clinician when they enter the exam-room. The primary care clinician enters the scores manually in a system, which indicates if a follow-up is needed [120].

  Durchführung des PHQ-2 mündlich durch medizin. Assistent*in, bei positivem Ergebnis PHQ-9

- Patients who should be screened are chosen and flagged based on the clinic's schedule for the next day. The front desk is responsible for the distribution of a paper version of the PHQ-9, which is handed to the patients in non-see-through folders for confidentiality reasons. The screening questionnaire is filled out on carbon paper. One designated staff member then collects the completed PHQ-9, attaching one copy to the clinician's paperwork for during the appointment and bringing the other copy to designated staff for tracking, follow-up assistance and documentation purposes. PHQ-9 scores and outcomes are recorded in the patients' medical records. Patients are referred to clinic social workers, hospital psychiatric services or other programmes, depending on the patient's needs and available options [123].

  Ausgabe des PHQ-9 an ausgewählte Patient*innen durch Rezeption; nach Ausfüllen Kopie an best. Mitarbeiter*in zur Nachverfolgung, Nachbetreuung und Dokumentation

- Patients in student health centres at a university must complete the GAD-7 and PHQ-9 as part of the appointment intake process. They receive the screening tools upon arrival from the front desk staff and fill in the questionnaires in the waiting room. They are then called into the triage room, where the nursing staff, among other tasks, verifies the completion of the questionnaires. Scores are calculated by the nursing staff and communicated to the nurse practitioner, physician assistant or physician who is scheduled to see the patient. Algorithms are implemented to provide recommendations based on the scores of the two instruments. Available options, depending on the score, include the provision of patient education on depression/anxiety, referral to a counselling centre and arranging a follow-up appointment, immediate evaluation at the clinic with subsequent counselling therapy and consideration of medication therapy [127].

  Ausfüllen des GAD-7 und PHQ-9 im Warteraum, als Teil der Anmeldung für einen Termin, Berechnung des Scores durch Pflegepersonal und Kommunikation an Arzt/Ärztin

Training and cooperation activities

Schulungen zur Gewährleistung eines qualitativ hochwertigen Screenings nötig

All clinic/primary care practice personnel might be involved in the screening process [123]. It is, therefore, important to educate and train staff to ensure a high quality of screening [118]. Training can happen at the particular practice with brief face-to-face training and information material [122] or at designated training centres, which can model optimal screening practices for staff from different regions [17].

Nichtwissen über Wichtigkeit & Gründe von Screening als Barriere für Implementierung

Unawareness of screening policies and recommendations, as well as the rationale for screening for mental health issues, have been identified as significant barriers to the establishment of screening procedures among healthcare professionals [128]. If the staff supposed to conduct the screening is not aware of its importance, they might choose not to implement it at all or incorrectly [125]. Educational meetings, conferences and the formation of peer networks can help mitigate this barrier. Some studies have further shown that practitioner's views of screening could be changed when they experience situations in which a patient might not have been recognised as having a mental health issue without screening [125].

Schulungen zu z. B. Patient*innengespräche über psychische Erkrankungen, uneindeutige Ergebnisse, Formulierung der Screeningfragen, oder spezielle Situationen

Training should include how to start discussions of mental health issues, how to use the screening tool, how to calculate and interpret scores, what to do with a positive screening score, and finally, what to do in special situations, such as when a test result is equivocal. Training also needs to include aspects such as illiteracy, low cognitive abilities or language barriers. Staff conducting the screening verbally would need practice in phrasing and asking the screening questions since the questionnaire format of screening tools might feel unusual in the beginning. Active listening skills might also be helpful when patients disclose mental health issues [128].

Kooperationen & Arbeitsaufteilung innerhalb der Praxis, aber auch zwischen verschiedenen Leistungserbringer*innen müssen aufgebaut werden

In addition to training, cooperation between different actors will need to be established if it is not already in place. In the case of mental health screening, cooperation will primarily involve cooperation within a primary care practice, as well as cooperation with different professionals who can provide assessment or treatment to positive screened patients. As for cooperation at the office site, the assignment of clear screening roles and specific tasks might help reduce the burden on staff in the long term [123]. For cooperation between different providers, technology to share information, such as electronic medical records (EMR), together with the provision of a stepped care approach, shared care, and dedicated funding, have been identified as key factors to consider [121].

mögliche Barrieren:

Probleme bei der Dokumentation, Komplexität des Prozesses, zeitliche Beschränkungen & andere Prioritäten bei der Behandlung

A standardised screening protocol, a clinical support algorithm for treatment/referral, an optimised electronic medical record, and a follow-up system for patients with significant (in this case, depressive) symptoms were elements of success for implementation. However, challenges included documentation issues, process complexity, provider and staff knowledge and beliefs, time constraints and competing patient priorities [129]. Training and education, interdisciplinary teams, collaboration with stakeholders, embedding reminders into the electronic health records, or shifting tasks from one role (e.g., physician) to another (e.g., behavioural health care practitioner) were also important strategies to implement an approach to delivering care for people who have or are at risk of developing substance use disorders (Screening, Brief Intervention, and Referral to Treatment, SBIRT) [130].

Finally, different kinds of information should be prepared for everyone involved in the screening process. This includes information for patients, staff involved in the screening process, decision makers and potentially media outlets. Information should be adapted for each involved group and be available before the beginning of the screening programme [17].

Vorbereitung verschiedener Informationen für alle involvierten Personen

Monitoring systems and quality assurance

Assuring the quality of a screening programme involves setting standards for each screening component, having a system that ensures that the standards are being met, and having clear guidance and policies set that describe each screening step in detail and initiatives to further improve the quality of the whole programme [118]. Different standards to measure the quality of a screening programme can be set, such as screening uptake, positive predictive values, questionnaire completion rates and follow-up/referral rates [121, 124]. Each set standard should be measurable and have a definition of how exactly it should be measured. In addition, each standard should have a minimum acceptable rate that screening practices should aim to reach. A system to check whether standards are met can consist of high-quality data returns (e.g., in the form of run charts [124]), provider self-assessment or inspection visits to ensure that staff has received the proper training. The quality of the chosen screening test, as well as the quality of the delivery of the screening test, should also be regularly evaluated. Finally, ideally, a failsafe system that manages screening results and referrals and checks data for errors should also be in place.

zur Erhaltung & Messung der Qualität, müssen Mindeststandards für jeden Screeningschritt gesetzt werden

3.3.2 Structure of health care system

For this subchapter, the underlying question from the EUnetHTA Core Model® is: *What are the processes ensuring access to mental health screening for patients/participants?* Access to care is often measured in terms of utilisation. It is related to social, cultural, economic, organisational, relational or geographical factors. Access to care, broadly defined, includes availability, accessibility, accommodation, affordability and acceptability [32].

Zugang zur Versorgung abhängig von sozialen, kulturellen, ökonomischen & geographischen Faktoren

Data from the Austrian health insurance on the uptake of the periodic health examination (*Vorsorgeuntersuchung*) show that around 40% of the population is reached by this service [29]. According to the study by Wancata et al. [10], the participation rate for people without mental illness was a bit higher (41%) than for people with mental illness (35%), although the difference was not significant. There is no information regarding the socioeconomic characteristics of the people who take part in the health examination regularly. However, according to a recent report from Germany on "Target group-specific approach of insured persons for general health check-ups", the data indicate that the service in Germany is more likely to be used by people who already have frequent contact with healthcare practices. Groups with higher health risks and who make less use of the outpatient care system are less likely to participate in the general health check-up programme. These include people with low socio-economic status, women and especially men with indications of health risks (nicotine consumption, no or little physical activity, low fruit and vegetable consumption) or who rate their health as moderate or poor, as well as people who have immigrated to Germany. Across all age groups, approximately 44% of men and 50% of women attend the general health check-up in Germany once every two years [131].

ca. 40 % der österreichischen Bevölkerung nehmen an der VU teil

Daten aus Deutschland deuten darauf hin, dass Personen mit Risikofaktoren VU weniger wahrscheinlich wahrnehmen

ca. 60 % der Personen mit psychischen Erkrankungen nehmen keine Hilfe in Anspruch, Anzahl höher in Orten mit geringer Versorgungsdichte

zusätzliche Barriere: Stigma rund um psychische Probleme, v. a. in Gruppen mit Risikofaktoren

Generally, a large proportion of people with mental health problems do not seek help from any health care professional. For example, Austrian data showed that 58% of people with a mental illness did not receive treatment [10]. In Germany, 35% of women and 31% of men with current depressive symptoms reported that they had used psychotherapeutic or psychiatric services in the past twelve months. That means that around two-thirds of people with current depressive symptoms either did not seek professional help or were treated in primary care practices or by care providers focused on somatic care. The utilization of psychiatric and psychotherapeutic services was associated with not living with a partner and with low levels of social support, but also with the local supply situation: in areas with a high density of care providers, the proportion of people with depressive symptoms using the services is 15 percentage points higher than in regions with a low density of care providers [132]. Older age, female sex, and more severe functional deficits were positively associated with help-seeking for mental health problems in this sample, whereas different types of stigma (e.g., structural stigma, perceived stigma, self-stigma, anticipated stigma) were important barriers [133]. A review on the impact of mental health-related stigma on help-seeking showed that stigma had a particularly large effect on help-seeking for certain population groups, e.g., people from ethnic minorities, young people and males [134]. Consequences of mental illness-related stigma may include delays in help-seeking, discontinuation of treatment, suboptimal therapeutic relationships with the provider and poorer quality of mental and physical care [135].

Studie mit Implementierung eines Routine-Screenings: kann Erkennung von Depressionssymptomen verbessern & Risikogruppen besser erreichen, jedoch ist Screening allein ohne Nachbetreuung nicht ausreichend

Depression is often unrecognized and untreated, with certain population groups at a higher risk for undertreatment, such as men, individuals from racial and ethnic minorities, people with language barriers, and older adults. A cohort study in primary care facilities found that the implementation of a routine depression screening improved screening rates among groups at risk for under-recognition and undertreatment of depression. Implementing a system-based routine screening programme seemed to alleviate some barriers, such as patient's underreporting of symptoms, concerns about stigma, or competing demands. In this implementation study, the screening tool was available in several languages, and the primary care facilities had access to professional interpreters. In addition, clinical staff speaking multiple languages also supported the screening of patients with non-English language preferences. The article, however, concluded that while depression screening is essential, it alone is not enough to reduce disparities in depression care. Screening can improve the recognition of depressive symptoms, but it must be followed by appropriate clinical action [136].

Implementierungsansätze sollen niederschwelligen Zugang zur Versorgung & strukturelle Barrieren thematisieren

People with alcohol use disorders, particularly those from marginalized communities, also face multiple barriers in accessing the health care system. Therefore, the Canadian guideline [60] recommends that implementation efforts should also include low-barrier access points and that structural barriers (e.g., lack of physician training in addiction medicine) should be addressed.

Punkte für besseren Zugang & Nutzung:

kulturell angepasste Angebote,

Angebote außerhalb der normalen Arbeitszeiten,

According to the NICE Depression guideline [66], to promote access and increased uptake and retention, care pathways should have the following in place:

- services delivered in culturally appropriate or culturally adapted language and formats,
- services available outside normal working hours,

- a range of different methods to engage with and deliver treatments in addition to in-person meetings, such as text messages, email, telephone and online or remote consultations (where clinically appropriate and for people who wish to access and are able to access services in this way),
- services provided in community-based settings, for example in a person's home, community centres, leisure centres, care homes, social centres and integrated clinics within primary care (particularly for older people),
- services delivered jointly with charities or the voluntary sector,
- bilingual therapists or independent translators,
- procedures to support the active involvement of families, partners and carers, if agreed by the person with depression.

verschiedene Optionen für Behandlung,

Community-basierte Angebote,

Dienstleistungen mit Beteiligung des Freiwilligensektors,

bilinguale Therapeut*innen,

Optionen zur Beteiligung nahestehender Personen

3.3.3 Process-related costs

As outlined in the introduction, ten screening principles by Wilson & Jungner were published in a WHO report in 1968 [21]. One of these principles is that the cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole. When implementing a new screening procedure, different costs have to be taken into account. This sub-chapter aims to give a brief overview of components of a mental health screening programme that could create costs and to reflect on data and information regarding resources that would be needed to estimate the budget impact for the mental health screening implementation in Austria.

verschiedene Kosten müssen bei der Implementierung eines Screeningprogramms bedacht werden

As described before, screening does not only involve the screening itself, but should be seen as a process, including the invitation or identification of potential participants, the provision of the screening itself and the subsequent steps of referral and, if necessary, treatment. In the case of mental health screening, the costs for the screening itself may involve personnel costs for the healthcare professionals administering and interpreting the screening as well as licensing fees for the questionnaire (although most of the screening questionnaires are available free of charge) and any necessary software. Integration into electronic health record systems would also involve additional costs for the implementation as well as ongoing costs.

mögliche Kosten:
- **Einladung potentieller Teilnehmer*innen**
- **Personalkosten für die Administration des Screenings**
- **Kosten des Tests**
- **Implementierung in die elektronische Patient*innenakte, etc.**

If a patient screens positive (i.e. has a higher risk for the respective mental health condition), the person needs to be assessed by the healthcare professional or referred to a more specialised healthcare professional for further diagnostic testing to find out if the person actually is affected by the mental illness and/or if there is a need of therapeutic interventions (e.g., psychological/psychotherapeutic interventions, pharmacotherapy). It is crucial to ensure that everyone with a screen-detected abnormality receives timely, high-quality interventions, along with accurate information and appropriate support. The screening programme may increase demand for mental health services, requiring additional resources to expand the mental health care infrastructure [17].

Kosten für diagnostische Abklärung und ggfs. Behandlung

Bedarf an psych. Therapie kann durch Screening steigen → Ressourcen zum Ausbau der Infrastruktur nötig

Apart from the ongoing costs of the screening, some initial costs would also be incurred to set up and implement the screening programme. For example, it would be necessary to develop and implement clear pathways for the screening as well as for the subsequent referral, treatment and follow-up care.

anfängliche Kosten bei Implementierung durch Entwicklung von Behandlungspfaden,

Training & Schulungen des Personals, Aufsetzen von Kommunikationsstrategien & Systemen zur Qualitätserhaltung

To ensure high-quality services, training and further education of healthcare professionals (e.g., primary care physicians, other healthcare professionals potentially conducting screening within primary care) to correctly administer and interpret screening results should be provided. Communication strategies and information campaigns could be helpful in raising awareness and increasing acceptance of screening among both the population and healthcare professionals. Evaluation, monitoring and quality assurance may also produce additional costs.

zur Einschätzung des benötigten Budges müssen die benötigten Mengen & Preise für die jeweiligen Komponenten berechnet werden

Mengen abhängig von der gewählten Zielpopulation

To estimate the budget impact of the implementation of a mental health screening for Austria, two types of information would be needed to calculate the costs: information on needed quantities and the prices/tariffs of all those cost components listed above. Regarding the quantities, the number of people who should be screened depends on the decision whether the screening should involve all adults or those with risk factors only. The estimated number of necessary diagnostic assessments depends on the number of people to be screened as well as the choice of screening tools and their sensitivity and specificity. The prices or tariffs of the above-listed steps of the screening pathway (e.g., administration of the screening tool, referral, treatment, follow-up care) would also be needed, and costs for the implementation of the mental health screening in the primary care practices, including developing pathways, providing training and monitoring the screening, would have to be estimated.

3.3.4 Culture

Acceptance of mental health screening

Barrieren zur Akzeptanz eines Screeningprogramms müssen bedacht werden

Physician-, practice, and patient-related aspects might influence the acceptance of a screening programme and may, therefore, compromise proper implementation [58]. Being aware of possible barriers that may be encountered from each perspective might mitigate them.

Screeningangebot durch Primärversorger*innen als erste Anlaufstelle für Patient*innen, die sich nicht trauen psychische Probleme anzusprechen

Depending on the literature, it is reported that only 35% to 43% of patients with depression receive any type of treatment [10, 56]. Patients might avoid self-referral for mental health issues through (perceived) cultural stigma of mental health problems. Some might also be concerned about increasing the burden on their family. Further, others might not recognise the need for mental health treatments at all [58, 124]. A screening offer from their primary care provider might, therefore, serve as a starting point for a discussion of mental health issues for patients who would like to discuss these issues but do not know whether it is appropriate to do so. Further, in areas with higher stigma and a lack of anonymous treatment options, screening via the internet or mobile phone applications might be preferred by some patients [119].

Kosten für Behandlungen als Barriere für Patient*innen

As screening should always be optional and not enforced upon patients, it is a legitimate concern that too many patients would opt out of screening. Yet, some studies have shown that the number of patients opting out of screening questionnaires is relatively small in comparison to barriers and stigma reported in the literature [124]. Another barrier might be the cost of treatment for the patient. Patients might not seek treatment after referral if they can't get the treatment refunded [121]. Other factors that might influence participation in a screening programme are simply not being aware of the screening programme, time constraints or language barriers [131].

Gesundheitsberufe können sich beim Ansprechen psychischer Probleme unsicher oder unbehaglich fühlen, v. a. ohne entsprechendes Training

The stigma around mental disorders will also have an influence on screening staff. Some providers or staff involved in the screening process might perceive an emotional burden associated with screening for mental health issues, feel discomfort discussing issues or fear of offending patients with enquiries about their mental health [58, 59]. This might be especially the case if no proper training is in place on how to handle identified patients [128]. Without proper referral systems in place, physicians might also have to bear the burden of treatment alone. If the physician perceives a lack of ability to treat mental health issues, they might decide not to screen. This aspect might be especially important in rural areas [58, 121]. However, one implementation study reports very positive feedback from the staff about the depression screening, also because it was perceived as a conversation starter to identify medical and psychosocial needs that may not have been addressed otherwise [129].

Fehlen von Überweisungsmöglichkeiten als ethisches Problem, das zur Unterlassung von Screening führen kann

Further, without proper training about the benefits of a screening programme, physicians might believe that screening will not lead to any lasting changes in their patient's health and, therefore, not follow screening recommendations [59, 121, 125]. In addition, some clinicians might find it unethical to screen for mental health issues if possibilities for referral are (perceived to be) lacking [120, 125, 128]. Lacking financial incentives, as well as time constraints, might cause clinicians to neglect screening for mental health issues in their practice [59, 121]. The higher workload associated with the implementation of mental health screening might be another barrier. However, the perceived workload might decrease with increased experience and clear distribution of responsibilities [121].

Glaube psychische Probleme intuitiv zu erkennen &, dass Patient*innen Probleme selbst ansprechen werden, als weitere Barrieren

Clinicians might also feel that they can usually tell if something is not right with their patients, which is why screening might not feel necessary from their perspective. Further, some might trust their intuition or clinical judgment when deciding whether to ask a patient about their mental health. In addition, screening via a screening tool might be viewed as impersonal since many primary care practitioners might know their patients for many years [121]. Some clinicians might also believe that the patient will bring up the topic of mental health if there is a need for treatment [58].

strukturelle Barrieren sind z. B. Zeitmangel, Arbeitsaufwand, etc.

Practice-related barriers have been alluded to in previous sections and include a lack of referral systems to manage patients with positive screening results, time constraints, lack of training for staff performing and managing the screening and lack of support from physicians or institutions [58, 128].

alle involvierten Stakeholder schon bei Planung des Screeningprogramms miteinbeziehen

To ensure that all perspectives are considered in the implementation of a screening programme for mental health issues, all important stakeholders that would be impacted by the implementation should be defined and their involvement should be integrated from the planning stage [120]. This will help establish communication paths and cooperation between different organisations and ensure that the screening programme persists in the long run. Possible stakeholders for a mental health screening could be:

- National or regional authorities
- Policy/decision-makers
- Operators of quality registries
- Primary care physicians
- Psychiatrists, clinical psychologists and psychotherapists
- Pharmaceutical industry
- Administrative staff
- Municipalities
- Patient organisations
- Patients with lived experience

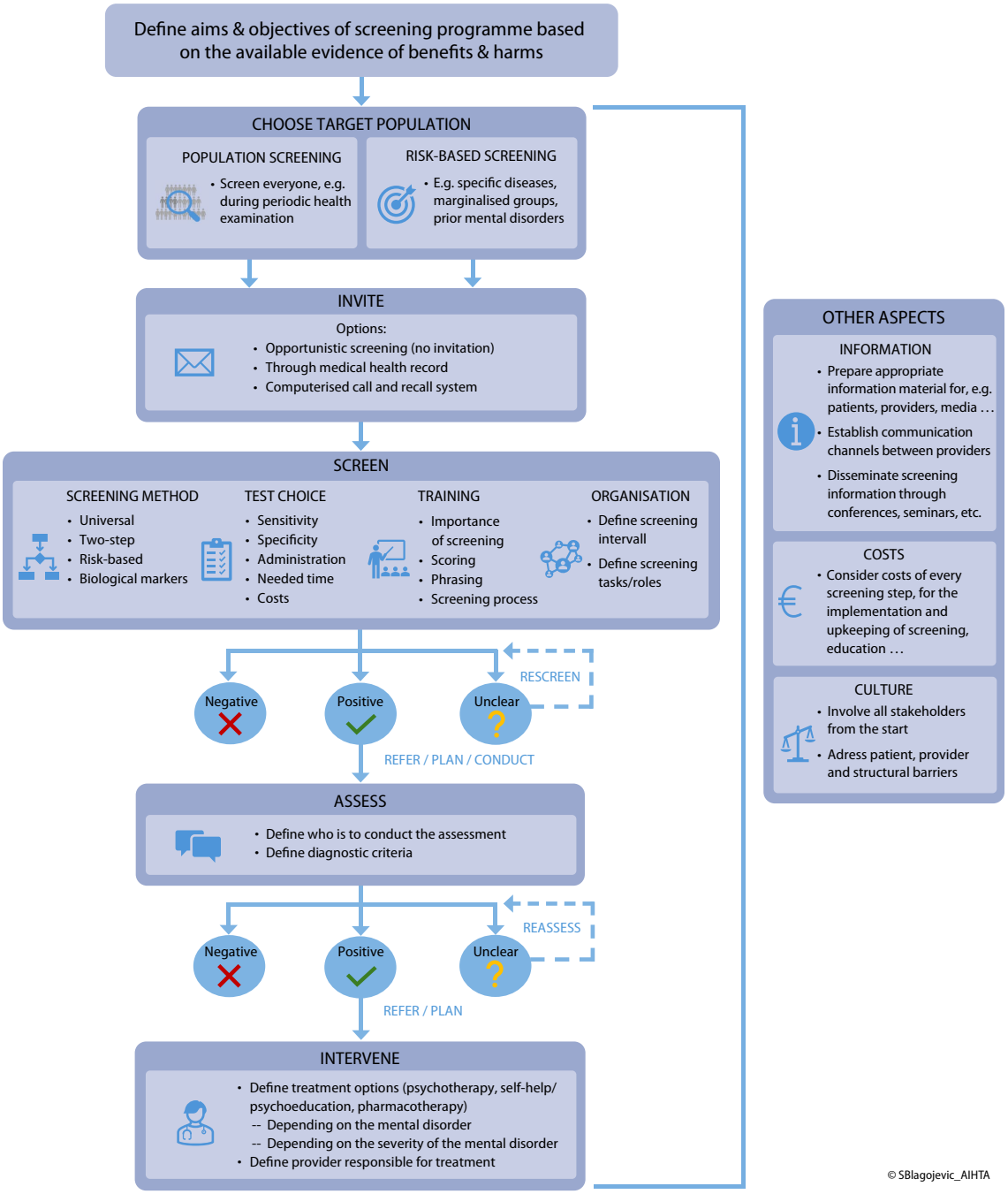

Figure 3-4: Mental health screening programme pathway

4 Discussion

Screening auf psychische Erkrankungen in der Primärversorgung als Möglichkeit Personen mit Behandlungsbedarf zu identifizieren

Ziel des Berichts: Aufbereitung der Evidenz & Leitlinienempfehlungen zum Screening auf psychische Erkrankungen in der Primärversorgung, Darstellung der Screeningmethoden & Schritten zur Implementation eines Screeningprogramms

Approximately one in five people in Austria suffer from at least one mental illness every year. The most common mental disorders include depression, anxiety disorders and substance use disorders. Screening is a process to identify people who are symptomless or not aware of a present disorder, who may be suffering from the specific condition being screened for in the present or who are at a higher risk of developing this condition in the future. To identify people with mental health issues, various validated screening questionnaires exist which could be used in a primary care setting. To date, there is no standardised screening for mental illness in Austria. The periodic health examination (*Vorsorgeuntersuchung*) currently involves assessment of alcohol use, smoking and medication use but does not include screening for depressive or anxiety disorders. This report aimed to summarise the current evidence on the benefits and potential harms of screening for depression, anxiety disorders and substance use disorders in adults in primary health care, as well as available recommendations from evidence-based guidelines (first research question (RQ)). Further, this report provides an overview of available screening methods and their characteristics (second RQ) and reflects on the implications of implementing a mental health screening programme in Austria (third RQ).

Summary of findings

RQ 1: Evidence from SRs and guideline recommendations for mental health screening in primary care

9 systematische Reviews (SRs) & 28 Leitlinien (LL) identifiziert

A total of nine SRs with mostly low RoB and 28 evidence-based guidelines with the majority meeting the defined quality threshold were identified to answer the **first research question**.

5 SRs zum Screening auf Depression: keine Evidenz einer Verbesserung der Mortalität oder gesundheitsbezogenen Lebensqualität; heterogene Ergebnisse bei Morbidität

4/5 SRs bewerten die derzeitige Evidenz als unzureichend

Five SRs [18, 36, 40-42] evaluating **screening for depression** in the general population were included, with heterogenous inclusion criteria. Three SRs had a low RoB, one had an uncertain RoB and one had a high RoB. Of 26 studies across all SRs, only four were included in more than one. There was no evidence of a benefit for screening concerning the outcome mortality. For morbidity, the outcomes were contradictory: half of the included reviews showed no evidence of improvement with follow-up times ranging between three months and five years across studies, one showed mixed results, and one reported a benefit at six months. Evidence did not indicate any increased harm, nor differences concerning health-related quality of life. Further, one SR included studies on the accuracy of screening, as well as benefits and harms on treatment, showing that accurate instruments and effective treatments are available. Four of five SRs concluded that the current evidence is insufficient to indicate a benefit for depression screening in primary care, with one SR not including any studies due to strict inclusion criteria. The fifth SR argued that in addition to there being direct evidence for the improvement of depression outcomes six to twelve months post-screening through screening programmes in primary care, indirect evidence shows that screening tools are accurate and easy to administer, and treatment options exist.

Further, a total of 19 guidelines [14, 56, 61, 63, 66, 67] with recommendations for depression screening were included, six addressing the general population and 13 addressing specific disease populations. Of the six general population guidelines, five recommended screening, with three focusing on screening people with risk factors or symptoms. Suggested screening intervals ranged from opportunistic approaches to screening every three to five years. All 13 guidelines for specific disease populations recommended screening, with four advising it as part of diagnosis and regular follow-up, especially during disease changes or after important life events.

5/6 LL für die Allgemeinbevölkerung & 13/13 LL für spezifische Erkrankungen empfehlen ein Screening

Two SRs with low RoB evaluated **screening for anxiety disorders** in primary care [35, 39]. One focused on screening in adolescent girls and adult women, and the second on adults in general. Only the latter identified studies for the effectiveness of anxiety screening, and the two RCTs included showed no group differences in anxiety or general mental health symptom severity nor patterns of harm. Both SRs additionally included studies on the accuracy of anxiety screening tools, as well as on the effectiveness of psychological and pharmacological treatment for anxiety disorders, concluding that while accurate screening tools and effective treatments exist, evidence for screening for anxiety in primary care remains insufficient.

2 SRs zum Screening auf Angststörungen: nur 1 SR identifizierte relevante Studien; keine Gruppenunterschiede

Bewertung der Evidenz als unzureichend in beiden SRs

Thirteen guidelines [57, 65, 67] provided recommendations on screening for anxiety disorders, with three addressing the general population. One guideline recommended screening adults up to age 64, while two advised physicians to remain alert for anxiety symptoms, especially in patients with risk factors. Ten guidelines addressed nine specific disease populations, all recommending screening for anxiety disorders. Some provide reasoning, such as high prevalences of mental disorders in the disease populations and better outcomes when mental disorders are treated. No specific intervals were suggested for the general population, while disease-specific guidelines recommended screening as part of diagnosis and regular follow-ups.

2/3 LL empfehlen ein Screening bei Patient*innen mit Risikofaktoren

10/10 LL zu spezifischen Erkrankungen empfehlen ein Screening

Two SRs with low RoB on **substance use screening** in primary care were identified [37, 38]: one for harmful alcohol use and one for harmful drug use. Neither identified studies on screening effectiveness but included studies on screening tool accuracy and treatment effectiveness. Both concluded that while no direct evidence exists, accurate screening tools and effective treatments are available.

1 SR zum Alkoholmissbrauch & 1 SR zum Drogenmissbrauch identifizierten keine Studien

Furthermore, eleven guidelines [51-53, 55, 59, 60, 62-64, 67, 68] for screening of substance use, including guidelines for harmful alcohol consumption, smoking, harmful drug use and medication use, were identified. All eight guidelines addressing alcohol use (seven in the general population and one in patients with diabetes), recommended screening, either by using screening tools or by asking the patient about their alcohol consumption. Screening for smoking was addressed in three guidelines for the general population, with one specifying people experiencing disadvantages. Suggested intervals varied from opportunistic screening to every three to five years. Both guidelines addressing screening for harmful drug use recommended screening in the general population or in people experiencing disadvantages using screening tools and in an interval of three to five years. Finally, screening for medication use was addressed in one guideline, noting the lack of reliable screening tools.

8/8 LL empfehlen ein Screening auf Alkoholmissbrauch

3/3 LL empfehlen Screening auf Tabakmissbrauch

2/2 LL empfehlen Screening auf Drogenmissbrauch

RQ 2: Screening methods and their characteristics

To answer the **second research question**, proposed screening methods and screening tools mentioned in the included literature were compiled, and their characteristics were summarised. The guidelines and SRs outlined four methods for detecting mental disorders:

2. FF: 4 Vorgehensweisen zur Erkennung von psychischen Erkrankungen:

1. Identifying at-risk individuals and using screening questionnaires.
2. Short, simple enquiry about patients' well-being and using screening questionnaires for worrying answers.
3. Using screening questionnaires for all patients.
4. Testing biological markers.

Screening von Risikopersonen; kurze Befragung aller Pat.; Screening-Fragebögen für alle Pat.; biologische Marker

Risk factors that are associated with mental health issues and could be used to identify at-risk individuals can be categorised as personal and genetic factors (e.g., previous depressive episodes, family history of mental illness, periods of hormonal changes), lifestyle and pre-existing health risks (e.g., chronic, somatic and psychiatric comorbidities), harmful drug and alcohol use (e.g., use of stimulants in close environment) and early life environment, traumata and stress (e.g., current or recent stressful life events, lack of social support).

bestimmte Risikofaktoren können zur Identifizierung von Risikopersonen verwendet werden

Overall, 105 screening tools for depression, anxiety disorders, and substance misuse were identified in the included guidelines and SRs, out of which 17 met our inclusion criteria and were subsequently described in more detail. The majority of the screening tools were developed to identify depression (e.g., PHQ-9, PHQ-2, …), followed by harmful alcohol use (e.g. AUDIT-10, SASQ …) and anxiety disorders (GAD-7 and GAD-2). In addition, questionnaires assessing the misuse of several substances (ASSIST) or two or more clinical pictures were also found (HADS or PHQ-D).

17 Screening-Tools erfüllten Einschlusskriterien

unterschiedliche Anzahl an Fragebögen für jedes Krankheitsbild

Most questionnaires consist of less than ten items and can, therefore, be completed relatively quickly (in less than five minutes). Furthermore, most of the tools can be administered by the patients themselves and are free of charge. The sensitivity and specificity of the measured outcomes varied. For instance, the sensitivity for depression ranged from 66% (HADS) to 94% (BDI-II), and the specificity from 65% (Whooley Questions) to 97% (HADS). In the case of general anxiety disorder, sensitivity ranged from 76% (GAD-2) to 79% (GAD-7), and specificity from 88% (GAD-2) to 89% (GAD-7). Regarding harmful alcohol use, sensitivity ranged from 57% (PHQ-D) to 95% (AUDIT-10) and specificity from 75% (AUDIT-C) to 96% (PHQ-D).

Parameter der Screening-Instrumente variieren, z. B. Länge, Dauer oder Sensitivität und Spezifität

RQ 3: Implications of screening implementation

Finally, important aspects of a comprehensive screening programme for mental health issues were outlined to answer the **third research question**. To maximise the benefits and minimise the harms of screening for mental disorders, it must be designed as a comprehensive process with clearly defined components, long-term funding, and management strategies at local, regional, or national levels. The screening process involves multiple steps, starting with defining the target population, which can range from the general adult population to high-risk groups (e.g., patients with chronic illnesses), obtaining informed consent, and administering screening tools, such as questionnaires. Selecting the right screening tools is crucial, with options to screen for one or multiple mental health conditions. The tools can be administered through paper forms, electronic systems, or even mobile apps. Importantly, individuals who screened positive have to be further assessed. Follow-up for positive screening results should be timely, either during the same visit or through

Screening soll als organisiertes System verstanden werden

Zielpopulation, Wahl des Screening-Tools, weitere Schritte für Diagnostik und Behandlung, Qualitätsmerkmale, etc. müssen geplant & organisiert werden

scheduled assessments, with clear pathways for referral or treatment. Quality assurance measures, including setting minimum quality standards for screening uptake, test accuracy, and follow-up rates, are necessary for the programme's success.

Weiterbildung des Screeningpersonals & Kooperation zw. verschiedenen Expert*innen als weitere wichtige Aspekte

Training clinic personnel in mental health screening is essential for effective implementation. Training should cover how to discuss mental health, administer screening tools, interpret results, and manage positive screened people, with special attention to addressing barriers like low literacy or language challenges. Cooperation among different healthcare professionals, such as primary care providers and mental health specialists, is also essential for effective treatment coordination. Monitoring systems, such as electronic medical records, should be integrated to track patient progress, ensure proper follow-up, and maintain quality standards.

Barrieren für die Inanspruchnahme eines Screenings, insbes. bei Gruppen mit niedrigerem sozioökonomischem Status und mit Gesundheitsrisiken

Verbesserung des Zugangs z. B. durch kulturell angepasste Angebote, flexible Zeiten, mehrsprachiges Personal

Access to mental health screening depends on factors like availability, affordability, and acceptability, with participation often influenced by social, cultural, and organisational factors. In Austria, around 40% of the population participates in periodic health exams, but people with mental health issues tend to have slightly lower participation rates. Certain groups, such as those with lower socioeconomic status and people with high health risks, are less likely to use general check-up services. Barriers to accessing mental health care include stigma, lack of provider availability, and socioeconomic factors, with certain groups, such as men and ethnic minorities, being less likely to seek help. Routine depression screening programmes, particularly in primary care, may improve detection but need to be followed by appropriate clinical action to address disparities in care. Recommendations to increase access to care include offering culturally adapted services, flexible hours, various methods of communication, and involving community-based settings and bilingual staff.

jeder Schritt des Screeningprogramms ist mit Kosten verbunden, zusätzlich entstehen Kosten für die Implementierung des Programms & für die Erhaltung der Qualität

Screening must be understood as a multi-step process, with each step potentially incurring costs. Costs for the screening itself include personnel costs, software integration, and possible licensing fees for screening tools, although many are free. People with positive screening results require further assessment and potentially specialized care, adding to the overall expenditure. Setting up the programme also incurs initial costs, including the development of care pathways, training for healthcare professionals, and public awareness campaigns. Ongoing costs include maintaining high-quality services and monitoring the programme's effectiveness. To estimate the budget impact in Austria, both the number of people to be screened (depending on the screening strategy and target group) and the costs of each step must be considered.

kulturelle Barrieren von Seiten der Patient*innen, Ärzt*innen & strukturelle Barrieren, z. B. Angst vor Stigmatisierung, Mangel an Therapieangeboten, Zeitmangel

Involvierung aller Stakeholder von Beginn an

The successful implementation of a mental health screening programme faces barriers related to healthcare professionals, practices, and patients. Many patients might avoid seeking help due to perceived stigma, fear of burdening their families, or not recognising the need for treatment. Healthcare providers may feel uncomfortable discussing mental health or worry about the lack of referral options, especially in rural areas, or time constraints. Some clinicians may rely on their judgment rather than formal screening or assume patients will bring up mental health concerns on their own. Additionally, staff may feel burdened by increased workload or inadequate training. Effective implementation requires addressing these barriers, providing education, ensuring proper referral systems, and involving stakeholders such as policymakers, healthcare professionals, and patient organizations from the start. This coordinated effort can foster long-term success and acceptance of the screening programme.

Critical interpretation

unterschiedliche Schlussfolgerungen & eingeschlossene Studien bei SRs zu Depressionsscreening durch heterogene Einschlusskriterien bedingt

As mentioned above, the identified SRs on depression screening had heterogenous inclusion criteria and, therefore, came to different conclusions. In the US, depression screening was first recommended in 2002, based on a SR and a subsequent recommendation statement from the USPSTF, and later confirmed in the updated versions in 2009, 2016 and 2023 [42, 56]. Other reviews and guidelines, however, came to different conclusions: e.g., a Cochrane Review from 2005 found substantial evidence that routinely administered screening questionnaires for depression have little to no impact on the detection, management, or outcome of depression [137]. The objective of the SR by Thombs 2014 [42] was to re-evaluate the RCTs included in the 2009 USPSTF review and to determine whether those studies fulfilled the three key criteria for trials testing depression screening: (1) determine patient eligibility and randomise patients prior to screening; (2) exclude patients already diagnosed or being treated for depression at the time of trial enrolment; (3) provide similar depression management options to patients with depression in the screening arm and patients in the non-screening arm who were identified as depressed through other ways. None of the studies included in the USPSTF review fulfilled all three criteria, nor did the studies included in the Cochrane Review from 2005. Therefore, the authors concluded that the USPSTF recommendation is not supported by direct evidence from RCTs [42]. The article by Thombs 2021 [41] included five RCTs, most of them with specific population groups (i.e., not the general population), e.g., postpartum mothers, patients with osteoarthritis or acute coronary syndrome, and military personnel. The authors concluded that there is uncertainty about whether routine screening would reduce depression in general practice. They recommend clinicians to engage patients in discussions about their overall well-being (including mental health) instead of screening using a questionnaire and to be alert to somatic as well as psychological signs that could suggest depression. If mental health concerns are present, clinicians should provide psychoeducation and discuss treatment options.

laufende Kritik an der USPSTF Empfehlung für ein Depressionsscreening

Studien zur Effektivität von Screenings sollten folgende Kriterien erfüllen:

1. **Randomisierung der Patient*innen vor dem Screening;**
2. **Ausschluss von Patient*innen mit bereits diagnostizierter psychischer Erkrankung;**
3. **gleiche Behandlungsoptionen für gescreente & ungescreente Patient*innen**

andere eingeschlossene Studien im IQWiG Bericht, v. a. durch Betrachtung der gesamten Screeningkette

The HTA report by the IQWiG [40] included different studies than, for example, the USPSTF review because the authors only considered studies evaluating the complete screening chain (studies evaluating the whole process of screening and subsequent treatment), whereas the USPSTF also included studies for each step of the screening process. However, they also included prospectively planned nonrandomised studies with a time parallel control group instead of RCTs only. The IQWiG authors additionally evaluated whether earlier treatment of people identified with depression during screening leads to better treatment outcomes than later treatment, but no studies with usable data were identified. In total, seven studies fulfilled the inclusion criteria, the majority of which were conducted in Japan. The report authors concluded that the results of these studies can only be transferred to a limited extent to Germany for reasons relating to both the study characteristics and the country-specific particularities: On the one hand, the suicide rates in the regions in which the Japanese studies were conducted are not comparable with those in Germany. On the other hand, suicide is culturally valued differently in Japan than in Christianised societies such as Germany, namely not as a form of sin but rather as a possible option in a critical life situation.

Großteil der eingeschlossenen Studien aus Japan → z. T. nicht auf Deutschland/Österreich übertragbar, da u. a. anderes Verständnis über Suizidalität

im Gegensatz zur Evidenz, empfehlen die meisten Leitlinien ein Screening auf Depression & Angststörungen, jedoch in Risikogruppen; nur Leitlinien zum Substanzmissbrauch empfehlen ein Populationsscreening

Most SRs evaluating the effectiveness of screening for depression and anxiety deemed the current evidence as insufficient for general population screening. Despite this, most of the identified guidelines recommended screening. However, the included guidelines rarely recommended screening for the general population, but mainly for specific risk groups or for specific somatic diseases. In contrast, most guidelines on substance use screening recommended population-wide screening, although here too, there was no evidence of effectiveness from SRs. The lack of substance use screening recommendations in primary care disease populations is interesting and begs the question of whether substance use is not a relevant factor in chronic disease management or whether this aspect has so far been overlooked.

Empfehlungen in Leitlinien aufgrund von hohen Prävalenzen & schlechteren Behandlungsergebnissen mit psychischen Erkrankungen

A closer look into the reasons for guidelines recommending mental health screening, even in the absence of reliable direct evidence, reveals that recommendations are based on high prevalences of unidentified mental health issues in primary care (e.g. [59, 61, 68]) in the general population, and high prevalences of mental health issues coupled with worse mental and physical outcomes when mental health issues are not recognised in disease populations (e.g. [43, 45, 62, 69]). The German guideline for unipolar depression, for instance, argues for a risk-factor-based screening since patients might not recognise the symptoms of depression (e.g. sleep disturbances, ongoing pain, fatigue, etc.) as such and since primary health practitioners usually know their patients and might therefore reliably identify certain risk factors [14].

Empfehlungsgrade über verschiedene LL hinweg schwer vergleichbar, aufgrund von unterschiedlichen verwendeten Systemen zur Graduierung von Empfehlungen

All identified guidelines used a system to grade their recommendations, i.e. to indicate the strength of the recommendation. However, as there is currently no consensus internationally, many different classifications were applied, e.g., the use of letters (e.g., Grade A as the highest possible), differentiating between “strong” and “weak” or “conditional” recommendations or by wording the recommendations appropriately (e.g., “should”, “consider”, …). This makes comparability of the grades of recommendations (GoR) difficult. In addition to using different classification systems, the heterogeneity of the GoRs also suggests that the guideline institutions take into account the available evidence and other important factors, including expert judgement, to varying degrees when assigning recommendation grades.

häufigste Screeningmethode waren Screeningfragebögen, außer für Substanzmissbrauch → Empfehlung nach Substanzkonsum zu fragen

Our report has identified different methods for detecting depression, anxiety and substance misuse in primary care. The most recommended approach was to use validated screening instruments, except for screening of substance use, where recommendations were often to just “ask” the patient about their consumption. The various tools differ in their characteristics, e.g., length, administration, sensitivity and specificity, and accordingly fulfil the principles of high validity and reliability, brevity, simple administration, low cost and good accessibility in varying degrees [20].

selbstauszufüllende Screeningfragebögen könnten Barrieren wie Zeitdruck & Unbehagen beim Screening umgehen …

Questionnaire-based screening measures are easy to perform, but also have limitations. Brief screeners, for example, may be sufficient for identifying individuals with harmful drug use. However, further assessment is necessary to determine the specific drugs being used and the level of risk, to guide clinical intervention [138]. Additionally, certain tools may become outdated over time, or instruments that work reliably in one cultural context may not do so in another cultural context [139]. Screening findings may be distorted if, for example, questionnaires are used to screen certain refugee groups in Austria, that have been validated in the general population of their home country, but not in the context of a refugee population.

selbstauszufüllende Screeningfragebögen könnten Barrieren wie Zeitdruck & Unbehagen beim Screening umgehen

Bias durch sozial erwünschtes Antwortverhalten möglich

Screening primary care patients for various health conditions, such as depression, is associated with time pressures, staff discomfort, and patients' reluctance to disclose sensitive information. Self-administered screening tools could reduce these barriers and improve the detection of at-risk patients [140]. A self-administered screening approach has the potential to reduce the stigma associated with mental health disorders in a face-to-face interview and could lead to patients feeling more comfortable and responding more honestly [138, 141]. In a study evaluating the implementation of substance use screening, detection of harmful substance use was higher when self-administered tools were used instead of staff-administered approaches. This was probably related to the more accurate answers given by patients in self-administered questionnaires, whereas staff might alter the wording of screening questions in an attempt to speed up the process or minimise perceived patient discomfort which might distort findings [138]. Further, for both self-administered and provider-administered tools, potential bias due to social desirability, a person's tendency to act in a way that they believe others will view favourably or approve of, must be considered [142]. However, screening questionnaires only represent the first phase of a two-stage process and do not replace a diagnostic assessment by an interviewer [143].

jedoch auch eine mögliche Barriere für Personen mit anderen Sprachen oder mit geringer Lesekompetenz

Further, some potential disadvantages of using a self-administered tool are that some patients may feel more comfortable responding to questions posed by an interviewer, and self-administration eliminates the possibility of establishing a connection with the interviewer during the screening process. Additionally, it should be noted that the use of self-reported questionnaires may run the risk of being difficult for individuals with other languages, limited reading ability and low levels of literacy [138, 144, 145]. Especially for patients who are not native speakers (e.g., migrants, refugees) challenges, such as language barriers, cultural differences, stigma and not knowing how to navigate a foreign health care system, should always be kept in mind.

weitere Option: elektronische Fragebögen zum Selbstausfüllen im Wartezimmer oder zu Hause

The use of self-administered questionnaires via electronic devices may eliminate some of these barriers. An audio computer-assisted self-interview (ACASI) could be completed on a tablet computer or kiosk in the waiting area or even at home via an internet portal [144] before the medical visit. These kinds of questionnaires are not dependent on the way the interviewer asks the questions, e.g. the interviewer could paraphrase the questions or ask them in a leading manner [140, 144]. According to a study evaluating the screening of primary care patients for depression, injurious falls, or intimate partner violence, computerised self-interview approaches identified more than twice as many patients with concerns that could warrant immediate clinical attention compared to verbal screening [140]. Furthermore, personal characteristics such as race, gender, and age are eliminated through the use of computer assessments [144]. Another important advantage is that they are easily adaptable to multiple languages. However, for questionnaires that are to be completed at home, one must consider that many people might lack digital health literacy. This could especially be the case for older people or those without appropriate devices.

schnelle Analyse elektronischer Fragebögen & Eingliederung in elektronische Patient*innenakte möglich

In addition, the questionnaires can be analysed quickly and transferred to the patient's electronic medical records (EMR). In the course of embedding the data in EMR, risk groups could be identified, as has already been demonstrated for other clinical pictures, such as chronic obstructive pulmonary disease in asthma patients, genetic risk for type 2 diabetes and myocardial infarction [146]. EMR or electronic health records (EHR) data can also be uti-

lised to develop risk profiles in the field of mental health, e.g. postpartum depression [147] and suicide risk [146, 148].

Primärversorgung theoretisch gut für Screening geeignet durch Zusammenhang von physischen & psychischen Problemen; andere Settings kommen jedoch auch in Frage

Due to the association between mental illness and physical diseases, it can be assumed that people seeking help in primary care practices have elevated rates of mental health issues, such as depression or anxiety, compared to the general population, which is why the primary care setting may be a good setting for mental health screening [120]. This is further echoed by the majority of included guidelines for disease populations, which recommend screening for depression or anxiety. However, it is debatable whether disease populations might be screened in contexts other than primary care, such as special centres. Further, other contexts, such as schools [149, 150], workplaces [151], prisons [152], or refugee homes or refugee health clinics [153], might also be considered to screen non-disease populations and might make it easier to reach certain disadvantaged or high-risk populations.

potentielles Setting für Screening: Vorsorgeuntersuchung

Screening auf Alkoholkonsum & Tabak bereits enthalten, Standardisierung der Durchführung unklar

A potential setting for screening in primary care is the Austrian periodic health examination. In fact, of the three examined mental health issues, screening for alcohol use, smoking and medication use is already recommended, although evidence for its effectiveness is still lacking. It is, however, unclear to what extent this screening is conducted in a standardised manner and how primary care physicians handle treatment and referrals. Both tobacco use and alcohol consumption are still the biggest risk factors contributing to mortality in Austria [9], although tobacco use has more than halved since 2002, and risky alcohol consumption has been decreasing continually as well. It is not clear whether screening for these issues in primary care is a driver for this change or whether other factors have contributed.

Screening auf Depressionen in VU im Jahr 2019 nicht empfohlen, u.a. aufgrund Sorge vor Überverschreibung von Psychopharmaka

Further, the inclusion of screening for depression in the context of the periodic health examination was evaluated in 2019 [23]. One of the arguments for not including screening for depression in the examination was, next to missing evidence of its effectiveness, the fear of unnecessary overprescription of psychotropic medication to people who do not really need them. This further solidifies that, in order to mitigate this problem, a whole screening process and not just a screening test, with clear and standardised procedures in case of a positive screen, would need to be implemented if screening for depression and potentially anxiety, in the general population, ought to take place.

Screening auf psychische Erkrankungen erfüllt nur 3/10 Screeningprinzipien

Erfüllung der übrigen Prinzipien erfordert weitere Forschung & Ausbau der Versorgung:

Festlegung eines optimalen Screening-Intervalls bei psychischen Erkrankungen schwierig,

Akzeptanz eines Screenings unklar;

…

Considering screening principles from Wilson and Jungner [21], only three out of the ten principles currently apply to the screening for mental disorders, especially for depression and anxiety: (1) mental health issues, especially depression, are an important health problem, (2) there are currently accurate and brief tests available to screen for mental health issues, and (3) acceptable treatment options exist. In contrast, the understanding of how mental health disorders naturally develop and progress over time remains incomplete. Additionally, mental disorders do not really have an early symptomatic stage. Since mental disorders have various factors influencing their occurrence and can also be related to adverse life events, it is even more challenging than with other diseases, to reach people with a screening exactly when timely treatment would be most important. Therefore, determining an optimal screening interval based on a typical course of the disease is very difficult and will always be arbitrary to a certain degree. Further, it is not clear to what extent screening for mental health issues will be accepted by patients since mental health disorders are still stigmatized [154]. In addition, facilities for treating mental disorders often show considerable regional disparities in Austria, and many patients wait weeks to months to receive treatment due

to restricted publicly funded psychotherapy of psychiatrist capacities [155-157]. And it is further not clear whether screening for mental disorders is economically the best option to help those people who suffer from mental disorders or whether other strategies should be examined. Lastly, a test alone does not conclude screening; on the contrary, screening should always include the whole screening process.

… erhebliche regionale Unterschiede bei Therapieangeboten mit teils langen Wartezeiten

Screening may bring benefits but also harm, and just because it can be done does not mean that it should. In every screening, the potential harms should be taken into account, and the decision whether to introduce a new screening programme should be based on careful consideration of the benefits and harms. Potential harms associated with mental health screening could include the following: First, depending on the sensitivity and specificity of the screening test, screening always produces false-positive and false-negative results. All positive screening results require further evaluation to differentiate between false-positives and true-positives. Individuals with false-positive results may undergo unnecessary tests and face the potential risks or complications associated with those assessments. This may lead to psychosocial effects, e.g., anxiety. Additionally, many false-positive results can mean that, e.g., people who need a psychological/psychiatric assessment are subsequently faced with even longer waiting times. On the other hand, people who receive a false-negative result could misjudge their symptoms and, therefore, receive a delayed diagnosis [158]. Further potential harms include overdiagnosis and overtreatment, e.g., when people with mild depression are prescribed antidepressants that are not actually indicated as first-line therapy for mild depression and are associated with moderate side effects [159].

möglicher Schaden durch Screening muss bedacht werden → sorgfältige Nutzen-Schaden-Abwägung nötig

potentielle Schäden: z. B. falsch-positive Ergebnisse, dadurch unnötige weitere Tests sowie noch längere Wartezeiten; bei falsch-negativen Ergebnissen evtl. verzögerte Diagnose; unnötige Behandlung mit möglichen Nebenwirkungen

Further, in a health system with finite resources, what is spent for one strategy is no longer available for use of other purposes, i.e., the resources necessary for a screening programme may be better used in other ways [158]. Consequently, it should be evaluated whether screening for mental illness is the best option to improve mental health care at the population level or if other strategies might have a better benefit-risk ratio at lower costs. Mental illness-related stigma can ultimately lead to delays and poorer quality of care for both mental and physical illnesses. Therefore, alternative strategies to screening could include methods to reduce mental illness-related stigma, such as educational programmes and skills-based training for healthcare professionals [135]. Another option to improve mental health care could be the expansion and facilitation of access to psychotherapeutic treatment. According to the Austrian Ministry of Health, 7% of the population are willing to seek psychotherapeutic treatment. However, with the psychotherapists currently available, only 3.8% can currently be treated.[8] Additionally, according to the Professional Association of Austrian Psychologists (Berufsverband Österreichischer Psycholog*innen, BÖP), self-paid treatments are not affordable for at least 65% of the Austrian population.[9] Current health policy strategies to address these problems include the inclusion of clinical-psychological treatment as a social insurance benefit and the provision of study places for psychotherapy at universities.

Ressourcen könnten auch für andere Strategien als für Screening auf psychische Erkrankungen eingesetzt werden, z. B. Strategien, um Stigma zu reduzieren, Weiterbildung des Gesundheitspersonals, Ausbau der Versorgung und Erleichterung des Zugangs

[8] https://www.bmbwf.gv.at/Ministerium/Presse/20240111.html. (cited: 30.09.2024)

[9] https://www.boep.or.at/berufspolitik/zentrale-berufspolitische-ziele/klinpsy-behandlung-krankenschein (cited: 30.09.2024)

Limitations

Limitationen: möglicherweise fehlende LL für manche Erkrankungen;

potentiell Fehlen neuer Evidenz durch Einschluss von SRs

We are aware of the following limitations of our report: First, although we conducted a comprehensive search for relevant guidelines, we may have missed guidelines for certain disease populations, which might also give a recommendation regarding mental health screening. Further, we decided to include SRs that were published in the last ten years. While there are recent systematic reviews (from 2023) of screening for depression and anxiety disorders, the SRs for substance use disorders are from 2020 (drugs) and 2018 (alcohol). Therefore, primary studies that were potentially published since then were not considered in this report. The USPSTF is currently updating the guideline on screening and behavioural counselling interventions for harmful alcohol use[10], but neither the recommendation statement nor the underlying SR was available at the time this report was prepared.

Überblick der genannten Screeningfragebögen auf Basis der Informationen aus bereits identifizierter Literatur

For the second research question, the identified guidelines and SRs were searched for recommended or mentioned screening tools. This overview might not be complete. Further, we did not conduct an SR of the accuracy of the screening tools but summarised information from the literature already identified through the search for the first research question. In case of missing information on characteristics or sensitivity and specificity, relevant references were identified through a targeted hand search.

keine systematische Auswertung von Implementierungsstudien; Abschätzen eines Budget Impacts nicht möglich

Regarding the third research question on the implications of mental health screening implementation, the references were identified through the systematic search for the first research question and complemented by a targeted hand search. Therefore, we might have missed relevant literature. It was beyond the scope of our project to review optimal diagnostic procedures and therapeutic interventions based on the severity of each considered mental illness. Further, it was not possible to estimate the number of people in each screening step or the costs that would arise because there was no clear evidence in favour or against a certain type of screening. Estimating the budget impact would have to be a separate project, for which several decisions would have to be made beforehand, and relevant numbers and costs would be needed.

[10] https://www.uspreventiveservicestaskforce.org/uspstf/draft-update-summary/unhealthy-alcohol-use-adolescents-adults-behavioral-counseling-interventions (cited: 28.09.2024)

5 Conclusion

Bericht als Überblick zur Evidenz, Empfehlungen & Methoden zum Screening für die häufigsten psychischen Erkrankungen: Depression, Angststörungen & Substanzmissbrauch

The present report is dedicated to the topic of mental health screening of adults in primary care, focusing on the three most common mental disorders: depression, anxiety, and substance use disorders. The report summarises the available evidence from systematic reviews on the benefits and harms of mental health screening and provides an overview of screening recommendations from evidence-based guidelines, both for the general population and for groups with pre-existing health conditions. Further, the report gives a summary of available screening tools and their characteristics and highlights several factors that play an important role when implementing a screening programme.

derzeit mangelnde direkte Evidenz, dass ein Screening mehr Nutzen als Schaden bringt

Empfehlungen in Leitlinien meist bezogen auf Risikopopulationen

geeignete Screeningfragebögen vorhanden

Currently, direct evidence that screening for mental disorders in primary care is effective, bringing more benefits than harms, does not exist, and high-quality studies that evaluate the effectiveness of a whole mental health screening programme for the general adult population are still missing. Nevertheless, several guidelines recommend screening, highlighting that, apart from the available evidence, several other factors play a role in deciding about mental health screening. However, guidelines usually recommend targeted or stratified screening based on risk factors. An overview of relevant risk factors as well as the collection of guidelines with different disease populations as target groups, can serve as a first indication which risk factors might be prioritised. Further, a wide range of screening questionnaires for all the examined mental health issues exist and the provided characteristics, such as needed time, cost, administration type, sensitivity and specificity, can be used as a potential decision support.

unterschiedliche Faktoren müssen vor potenzieller Implementierung eines Screeningprogramms berücksichtigt werden

z. B. Definition der Zielgruppen und des gesamten Screeningpfads inkl. Diagnostik und Therapie, Aus- und Weiterbildung, Zugang und Akzeptanz, Finanzierung, …

Several key aspects must be considered by health policy decision-makers if, after considering the current evidence and balancing potential benefits and harms, a mental health screening programme is to be implemented in Austria. First, the screening should be structured as a comprehensive process that includes clearly defined components, such as identifying the target population, ranging from the general adult population to high-risk groups. Effective screening tools, whether paper-based, electronic, or app-based, should be selected and properly administered. Timely follow-up for individuals who screen positive is essential, and there must be established referral pathways for further assessment and treatment, which must be available in good quality and in sufficient quantity. Further, training healthcare personnel is crucial, focusing on communication skills, result interpretation and managing challenges such as low literacy or language barriers. Access to screening must address factors like availability, cultural acceptance, and stigma, ensuring that marginalised groups are adequately supported to participate. Additionally, a clear understanding of the costs associated with screening, including personnel, software integration, and initial setup expenses, is crucial for budget planning.

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Appendix

Search strategy Medline

Database: Ovid MEDLINE(R) ALL <1946 to June 13, 2024>		
No	**Search strategy**	**Results**
1	(*Mass Screening/or screening*.mp.) adj2 ("substance use" or "drug use" or depress* or anxiet* or anxious* or mental or behavio?ral).mp.	11884
2	limit 1 to (guideline or meta analysis or "systematic review")	374
3	guideline*.mp.	642765
4	(((comprehensive* or integrative or systematic*) adj3 (bibliographic* or review* or literature)) or (meta-analy* or metaanaly* or "research synthesis" or ((information or data) adj3 synthesis) or (data adj2 extract*))).ti,ab. or (cinahl or (cochrane adj3 trial*) or embase or medline or psyclit or (psycinfo not "psycinfo database") or pubmed or scopus or "sociological abstracts" or "web of science").ab. or ("cochrane database of systematic reviews" or evidence report technology assessment or evidence report technology assessment summary).jn. or Evidence Report: Technology Assessment*.jn. or ((review adj5 (rationale or evidence)).ti,ab. and review.pt.) or meta-analysis as topic/or Meta-Analysis.pt.	780496
5	exp Technology Assessment, Biomedical/	12354
6	technology assessment*.mp.	17191
7	HTA.ti,ab.	4238
8	3 or 4 or 5 or 6 or 7	1350274
9	exp age groups/not exp adult/	2205485
10	1 and 8	1359
11	2 or 10	1362
12	exp age groups/not exp adult/	2205485
13	11 not 12	1190
14	limit 13 to yr="2014-2024"	891
15	limit 14 to (english or german)	882
16	remove duplicates from 15	880

14.06.2024

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