

**Evaluation der medizinischen Versorgung von Asylsuchenden
in Halle (Saale) – eine Sekundärdatenanalyse**

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Referat

Asylsuchende haben aufgrund ihrer Migrationsgeschichte und der spezifischen sozialen Determinanten von Gesundheit vor, während und nach der Migration besondere Bedarfe an medizinischer Versorgung. In Deutschland ist der Zugang zur medizinischen Versorgung für Asylsuchende jedoch durch Gesetze und administrative Hürden eingeschränkt.

Anhand von Daten aus der Abrechnung von medizinischen Leistungen für Asylsuchende untersuche ich deren Inanspruchnahme von medizinischer Versorgung im ambulanten Sektor. Im Vergleich mit Daten aus einer Querschnittsstudie aus derselben Population zur Prävalenz von psychischen Erkrankungen beschreibe ich eine Unterversorgung dieser Erkrankungen.

Die Prävalenz für mindestens einen ambulanten Besuch einer Arztpraxis pro Jahr betrug 67,5 % [95 %-CI: 65,1-69,9 %], wobei die Prävalenz bei Frauen mit 81,8 % [77,9-85,5 %] deutlich höher war als bei Männern mit 62,5 % [59,6-65,4 %]. Die Diagnosen mit der höchsten Einjahresprävalenz waren „Akute Infektionen der oberen Atemwege“ mit 16,1 % [14,5-18,0 %], „Bauch- und Beckenschmerzen“ mit 15,6 % [13,9-17,4 %] und „Rückenschmerzen“ mit 13,8 % [12,2-15,6 %]. Insgesamt 21 % aller Medikamentenverschreibungen entfielen auf gängige Schmerzmittel. Frauen erhielten in den meisten Diagnosegruppen mehr Diagnosen und mehr Arzneimittelverordnungen aller Arten als Männer. Mehr als die Hälfte (55 %) aller Kosten für medizinische Versorgung entstanden im stationären Sektor. Während in der Querschnittsstudie 59,4 % der Asylsuchenden im Screening positiv für entweder PTBS, Angststörungen oder Depression waren, erhielten nur 4,9 % der Asylsuchenden eine entsprechende Diagnose im Gesundheitssystem. Von diesen Patient*innen erhielten wiederum 45,3 % keine entsprechende Behandlung und 37 % eine rein medikamentöse Behandlung. Psychotherapie erhielten nur 1 % dieser Patient*innen.

Die Analyse der Abrechnungsdaten eines kommunalen Sozialamtes liefert einen Einblick in die Inanspruchnahme von medizinischen Leistungen durch Asylsuchende auf individueller Ebene. Im Vergleich zu gesetzlich versicherten Patient*innen konnten Besonderheiten bei der Inanspruchnahme von medizinischer Versorgung durch Asylsuchende identifiziert werden. Insbesondere die Unterversorgung von psychischen Erkrankungen bei Asylsuchenden ist eklatant.

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1. Einleitung und Zielstellung

1.1. Asylsuchende im deutschen Gesundheitssystem

Asylsuchende¹ in Deutschland stellen für das Gesundheitssystem eine vielfältige Patient*innen-gruppe dar. Sie stammen aus vielen verschiedenen Herkunftsländern, haben sehr heterogene soziale Hintergründe und daher eine schwer zu kategorisierende Krankheitslast und Risikofaktoren. Gemeinsam sind ihnen die Migrationserfahrung, die Konstruktion als homogene Bevölkerungsgruppe durch die empfangende Gesellschaft und die in Deutschland daraus resultierende Marginalisierung im Gesundheitswesen. Dies hat Auswirkungen sowohl für die gesundheitliche Situation dieser Bevölkerungsgruppe und damit den Bedarf an medizinischer Versorgung, als auch auf die Realisierung medizinischer Versorgung.

Deutschland hat mit der Ratifizierung des Internationalen Pakts über wirtschaftliche, soziale und kulturelle Rechte 1976 das „erreichbare Höchstmaß an Gesundheit“ und die Inanspruchnahme medizinischer Versorgung als ein grundlegendes Menschenrecht anerkannt (1). Die Inanspruchnahme von medizinischer Versorgung wird einerseits durch den Bedarf an medizinischer Versorgung und andererseits durch die Verfügbarkeit von zugänglichen, akzeptablen und qualitativ hochwertigen medizinischen Angeboten bestimmt (2). Im Allgemeinen ist der Bedarf an medizinischer Versorgung von Asylsuchenden in Deutschland dem der Allgemeinbevölkerung sehr ähnlich (3–5). Dennoch stellen Belastungen vor, während und nach der Migration (6, 7) eine Reihe von besonderen Risikofaktoren dar (5, 6). Diese schlagen sich bei Asylsuchenden als besonderer Bedarf an bestimmter medizinischer Versorgung nieder: Studien haben eine höhere Prävalenz psychiatrischer Störungen (8–13), übertragbarer Krankheiten (4, 14) und gesundheitlicher Probleme bei Müttern (9, 15) gezeigt.

1.2. Strukturelle Zugangsbeschränkungen durch das AsylbLG

Obwohl diese besonderen Bedürfnisse von Asylsuchenden in der Literatur gut belegt sind, schafft das deutsche Recht mit dem Asylbewerberleistungsgesetz (AsylbLG) Barrieren beim Zugang zu medizinischer Versorgung (16). Das 1993 in Kraft getretene AsylbLG schließt Asylsuchende aus der gesetzlichen Krankenversicherung aus, beauftragt die Kommunen mit der Kostenübernahme für medizinische Leistungen und beschränkt den Anspruch auf Kostenübernahme auf akute und schmerzhaft erkrankte Personen sowie Leistungen bei Schwangerschaft und Geburt und bestimmte

¹ Als Asylsuchende bezeichne ich in dieser Arbeit alle Menschen, die sich um Asyl zu erhalten in Deutschland aufhalten, d.h. vom Zeitpunkt der Einreise bis zum Vollzug der Abschiebung bzw. positiven Entscheid des Asylantrags. Dies entspricht dem Personenkreis der Leistungsberechtigten nach Asylbewerberleistungsgesetz.

Präventionsmaßnahmen, z. B. Impfungen (§ 4) (16, 17). Andere Behandlungen können auf schriftlichen Antrag erstattet werden, sofern diese Leistungen unerlässlich für die Sicherung der Gesundheit sind (§ 6) (16). Nach der aktuellen Rechtsauffassung ist der Paragraph 6 des AsylbLG so auszulegen, dass der Leistungsanspruch dem von gesetzlich Krankenversicherten entspricht (18), jedoch ist die Auslegungspraxis von Kommune zu Kommune sehr unterschiedlich und teils rechtswidrig restriktiv (19, 20). Deshalb wird die Chance von Asylsuchenden auf eine adäquate medizinische Versorgung als stark abhängig von der zufällig erfolgenden Verteilung auf bestimmte Regionen in Deutschland beschrieben (19–21).

Die Kommunen sind relativ frei in der praktischen Umsetzung dieser rechtlichen Vorgaben zur Kostenübernahme. Einige Landkreise haben die gesetzlichen Krankenkassen mit der Organisation der Kostenerstattung an die Leistungserbringer beauftragt und geben elektronische Krankenversicherungskarten aus, die denen der gesetzlichen Krankenkassen entsprechen (3, 17). In anderen Bezirken gibt das kommunale Sozialamt auf Antrag „Behandlungsscheine“ (19, 22) aus, die den medizinischen Leistungserbringenden die Kostenübernahme nach AsylbLG durch das Sozialamt bestätigen. Diese Behandlungsscheine haben von Kommune zu Kommune variierende Gültigkeitszeiträume und Leistungsumfänge und werden je nach Landkreis proaktiv bedingungslos oder auf Antrag und anlassbezogen ausgestellt. Werden diese Behandlungsscheine vorgelegt, haben die Behandelnden damit die Zusage, dass Kosten der Behandlungen nach §4 AsylbLG erstattet werden. Weitergehende Leistungen wie Krankenhausbehandlungen oder Heilmittel müssen jedoch gesondert vor Behandlungsbeginn beantragt werden. Notfallbehandlungen können ohne vorherigen Antrag durchgeführt werden, jedoch müssen die Behandelnden dann im Nachhinein einen Antrag auf Kostenerstattung stellen. Alle diese Anträge werden dann von den medizinisch nicht geschulten Mitarbeitenden des Sozialamtes geprüft (23, 24), gegebenenfalls wird das Gesundheitsamt um ein medizinisches Gutachten als Amtshilfe ersucht. Wird der Antrag genehmigt, erstattet das Sozialamt den Leistungserbringenden die Kosten nach Erhalt der Rechnungen. Das Sozialamt fungiert hier durch die Kompetenz zur Bewilligung und Ablehnung von medizinischen Leistungen als Gatekeeper mit nichtmedizinischen Interessen.

In Halle (Saale) werden die Behandlungsscheine des Sozialamtes einmal pro Quartal ausgegeben und sind bis zum Ende des Quartals gültig (25). Die Behandlungsscheine werden auf Anfrage ohne weitere Voraussetzungen ausgegeben und umfassen ambulante ärztliche Behandlungen. Ausgenommen sind zahnmedizinischen Behandlungen, für die ein Behandlungstermin sowie ein Kostenvoranschlag der behandelnden Zahnarztpraxis vor Ausstellung eines Behandlungsscheins nachgewiesen werden muss.

Der komplizierte Prozess der Beantragung und Ausgabe dieser Scheine muss von Asylsuchenden unter Umständen im Krankheitsfall durchlaufen werden und wird durch die häufig fehlenden Kenntnisse über den rechtlichen Rahmen, seine Umsetzung und Sprachbarrieren ebenso erschwert, wie der anschließende Prozess der medizinischen Versorgung selbst.

Das Beantragungsverfahren der Kostenübernahme stellt deshalb in vielen Landkreisen an sich schon ein erhebliches Hindernis im Zugang zur medizinischen Versorgung dar (19, 21, 23). Darüber hinaus führt das Beantragungs- und Kostenerstattungsverfahren auch bei Leistungserbringenden zu einer Zurückhaltung, Asylsuchende zu behandeln, da die Beantragung aufwändig ist und sie befürchten müssen und oft annehmen, keine Kostenerstattung zu erhalten (19).

1.3. Weitere Hindernisse

Neben diesen strukturellen Hindernissen wird der Zugang von Asylsuchenden zu medizinischer Versorgung in Deutschland durch weitere soziale Faktoren erschwert, die neben Asylsuchenden auch andere sozial benachteiligte Gruppen betreffen. Die insbesondere im ländlichen Raum eingeschränkte lokale Mobilität (23, 26) aufgrund mangelnder Angebote des öffentlichen Personennahverkehrs hindert Asylsuchende daran, notwendige Versorgung zeitnah in Anspruch zu nehmen, vor allem wenn im Krankheitsfall ein zusätzlicher Gang zum Sozialamt zur Beantragung eines Behandlungsscheins notwendig ist. Sprachbarrieren (23, 26–28) behindern die Information über eigene Rechte, über die Modalitäten der Kostenübernahme von Behandlungen, die Funktionsweise des Gesundheitssystem und nicht zuletzt die Verständigung mit den Leistungserbringenden (23, 27). Auf Seiten der Leistungserbringenden behindern mangelnde Kenntnisse über die rechtliche Situation und die Lebenswirklichkeit ihrer Patient*innen (19, 27, 29) deren adäquate Versorgung. Diskriminierung und Rassismus sind im Gesundheitswesen insbesondere behindernd wirksam, wo die adäquate Versorgung von einem besonderen Einsatz der Therapierenden gegen die beschriebenen Hürden abhängt (27, 28, 30). Außerdem kann auch die individuelle Gesundheitskompetenz je nach Bildungsstand und Herkunftsland der Asylsuchenden sehr unterschiedlich sein (31, 32). Unterschiedliche Auffassungen über die Arzt-Patient-Beziehungen und das Rollenverständnis im klinischen Kontext können zu Konflikten zwischen Asylsuchenden und Leistungserbringenden führen und eine angemessene Versorgung erschweren (31, 33).

Diese Einschränkungen und Barrieren beeinträchtigen die Inanspruchnahme und Qualität von medizinischer Versorgung (3, 4, 19), entfremden die Patient*innen vom Gesundheitssystem (23, 34) und erhöhen langfristig die Gesamtkosten der Versorgung dieser Gruppe (17, 35).

1.4. Ziele des Forschungsprojekts

Ziel dieser explorativen Studie ist es, die Inanspruchnahme der ambulanten medizinischen Versorgung durch Asylsuchende in Halle (Saale) und die Kosten der Versorgung zu beschreiben. Durch

die Analyse von Abrechnungsdaten, die im Rahmen der Abrechnung von medizinischen Leistungen durch das städtische Sozialamt generiert werden, wird das einzigartige Potential dieser Datenquelle zur Beschreibung der Inanspruchnahme von medizinischer Versorgung durch Asylsuchende hervorgehoben. Unter Rückgriff auf andere Quellen von vergleichbaren Daten versuche ich, besondere Charakteristika der Inanspruchnahme zu identifizieren. Im Vergleich mit Primärdaten aus einer Querschnittstudie in derselben Population, in der eine Screening-basierte Prävalenz abklärungsbedürftiger psychischer Beschwerden gemessen wurde, quantifiziere ich außerdem eine Unterversorgung dieser Erkrankungen.

2. Diskussion

Ziel dieser Studie war es, die Inanspruchnahme der medizinischen Versorgung durch Asylsuchende zu beschreiben. Ich habe dabei mehrere besondere Merkmale identifiziert, die ich im Folgenden weiter diskutiere: eine geringe Inanspruchnahme des ambulanten Sektors, eine geschlechtsspezifische Diskrepanz bei den meisten Diagnosen und Leistungen, einen hohen Anteil an Schmerzmitteln an allen verschriebenen Medikamenten und einen hohen Anteil der Kosten für stationäre Behandlungen an den Gesamtkosten der medizinischen Versorgung. Weiterhin erörtere ich die festgestellte eklatante Versorgungslücke bei psychischen Erkrankungen.

2.1. Strukturelle Determination von Gesundheit

Für die kritische Diskussion der Ergebnisse meiner Forschung ist es essentiell, die ermittelten Werte, wie etwa Prävalenzen und Leistungsdaten, vor dem Hintergrund ihrer Entstehung zu betrachten. Die eingangs beschriebenen vorgelagerten sozialen Prozesse und gesellschaftlichen Rahmenbedingungen, unter denen die medizinische Versorgung von Asylsuchenden stattfindet, haben einen erheblichen Einfluss sowohl auf die Behandlungsbedarfe, als auch auf die Realisierung medizinischer Versorgung. So bleibt zum Beispiel ohne eine umfassende Betrachtung der Rolle der Sozialämter als Gatekeeper die niedrige Prävalenz von Facharztbehandlungen oder Psychotherapien unverständlich und irreführend.

Der Sozialepidemiologe Jaime Breilh hat mit der „Matrix kritischer Prozesse“ (Critical Process Matrix) ein Analysewerkzeug aus der Tradition lateinamerikanischer Sozialepidemiologie vorgestellt (36), das geeignet ist, die Vielschichtigkeit von sozialen Prozessen zu analysieren, die im Zusammenspiel zu höherer Morbidität und mangelhafter medizinischer Versorgung bei benachteiligten sozialen Gruppen führen. In der Matrix werden soziale Prozesse auf den Ebenen „General“ – Allgemein, „Particular“ – Speziell und „Individual“ – Individuell eingeordnet, um deren Interaktion und ihre Wirkung auf medizinische Outcomes zu beschreiben. Dabei gibt die jeweils höhere Ebene die Rahmenbedingungen für Prozesse auf der darunter liegenden Ebene vor. Als Allgemein lässt sich in Bezug auf die Gesundheit von Asylsuchenden das Wirken der globalen Wirtschaftsordnung

benennen, die durch kriegerische Konflikte, ökonomische Ausbeutung und das Befördern der Klimakatastrophe Migrationsbewegungen auslöst (37, 38). Auch die Gegenbewegung einer abwehrenden Migrationspolitik, die die Grenzpolitik der EU bestimmt, aus der das AsylbLG entstand und die damit den Spielraum für die tatsächliche medizinische Versorgung von Asylsuchenden absteckt, lässt sich hier einordnen (39). Diese Prozesse bestimmen die Bedingungen der speziellen Ebene, die die Lebensbedingungen und Verhaltensmuster von Bevölkerungsgruppen sowie deren Auswirkungen auf die Gesundheit umfasst. Hier sind etwa die lokale Umsetzung der gesetzlichen Bestimmungen des AsylbLG bezüglich Kostenerstattung angesiedelt (19, 25), sowie die Lebensbedingungen in den Unterkünften und räumliche und kapazitive Verfügbarkeit von Angeboten der medizinischen Versorgung (21, 23), aber auch kulturelle Prozesse, z. B. geschlechtsspezifische oder rassistische Diskriminierung (15, 40, 41). Hieraus ergeben sich wiederum die Rahmenbedingungen für die individuelle Ebene, auf der sich alle persönlichen und biomedizinischen Prozesse, wie etwa biologische Vorgänge im Körper, aber auch Gesundheitsverhalten und Inanspruchnahme von medizinischen Leistungen abspielen.

2.2. Inanspruchnahme der ambulanten Versorgung

Wissenschaftler*innen betonen seit langem die große Bedeutung präventiver und frühzeitiger ambulanter Versorgung für die effektive und effiziente Reduktion späterer Krankheitslast im Allgemeinen (42, 43) und für Asylsuchende und andere vulnerable Gruppen im Besonderen (35, 44). Beim Vergleich meiner Kohorte von Asylsuchenden mit der gesetzlich krankenversicherten Bevölkerung (45) fanden sich ähnliche Verteilungsmuster in der Alters- und Geschlechtsverteilung der Inanspruchnahme ambulanter Versorgung, d. h. insbesondere Kinder und ältere Menschen, sowie Frauen im mittleren Alter nahmen ambulante Versorgung häufig in Anspruch. Die Prävalenz von Arztbesuchen war jedoch über alle Alters- und Geschlechtsgruppen hinweg bei Asylsuchenden niedriger. Während unter gesetzlich Versicherten mehr als 90 % aller Personen mindestens einmal im Jahr eine ambulante Arztpraxis aufsuchten (45), war diese Prävalenz in meiner Population mit 67,5 % vergleichsweise gering.

Im Einzelnen war die Inanspruchnahme der ambulanten fachärztlichen Versorgung in jedem Fachgebiet niedriger als in der gesetzlich krankenversicherten Bevölkerung (45) mit Ausnahme der Kontakte zu Notaufnahmen (46). Forscher*innen haben festgestellt, dass die hohe Inanspruchnahme der Notfallversorgung auf eine ineffiziente und verzögerte ambulante Versorgung sowie auf Hindernisse beim Zugang zur regulären Primärversorgung zurückzuführen ist (44). In Notaufnahmen sind die organisatorischen Hürden im Gegensatz zu anderen ambulanten Anlaufstellen gering, da Asylsuchende dort keine Behandlungsscheine benötigen, um behandelt zu werden. Hier zeigt sich, dass die individuelle Entscheidung darüber, welche medizinische Versorgung in

Anspruch genommen wird, determiniert ist durch die auf der speziellen Ebene stattfindenden Restriktionen der im Krankheitsfall zur Verfügung stehenden Optionen. In Zusammenschau mit den festgestellten hohen Kosten im stationären Sektor führe ich die Ursache für die niedrige Inanspruchnahme von ambulanter medizinischer Versorgung deshalb auf Effekte der Einschränkungen durch die lokale Umsetzung des AsylbLG zurück und deute sie als Zeichen einer Unter- und Fehlversorgung im ambulanten Sektor.

2.3. Geschlechtsspezifische Unterschiede

Bei fast allen untersuchten Parametern der Inanspruchnahme habe ich ein großes geschlechtsspezifisches Gefälle festgestellt, wobei Frauen höhere Prävalenzen von ambulanten Behandlungsanlässen aufweisen und anteilig mehr mit Ärzt*innen in Kontakt kommen, häufiger Diagnosen erhalten und mehr Verordnungen ausgestellt bekommen. Dies lässt sich nur zu einem Teil durch Leistungen im Rahmen von Schwangerschaften und Geburten erklären, da es auch für fast alle anderen Diagnosegruppen und Häufigkeiten von medizinischen Leistungen gilt. Diese Ergebnisse decken sich mit anderen Studien (11, 22). Ähnliche Tendenzen werden auch für gesetzlich Versicherte berichtet (45, 47).

In der Literatur werden geschlechterspezifische Differenzen im Inanspruchnahmeverhalten beschrieben. So nehmen Frauen etwa früher niedrigschwelligere medizinische Behandlungen und häufiger Vorsorgeleistungen in Anspruch (48, 49). Häufigere Inanspruchnahme von präventiven und Früherkennungsmaßnahmen wird jedoch auch als mit einer Reduktion der Kosten medizinischer Versorgung verknüpft beschrieben (50). Andere Forscher*innen beschreiben einen schlechteren wahrgenommenen und objektiven Gesundheitszustand bei Frauen und damit höheren Bedarf an medizinischer Versorgung (51). Dies wurde als Folge multidimensionaler gesellschaftlicher Benachteiligung von Frauen beschrieben, so haben Frauen häufiger ein geringes Einkommen, hohe soziale Belastungen und sind häufiger betroffen von Diskriminierung und Gewalt (52). Die in meiner Studie festgestellte Kombination aus höherer Inanspruchnahme aller medizinischen Leistungen mit gleichzeitig höheren Gesamtkosten ist daher vermutlich eher Ausdruck einer höheren Krankheitslast als Ausdruck der gesellschaftlichen Benachteiligung von Frauen, die sich im Falle von Asylsuchenden mit der ökonomischen und aufenthaltsrechtlichen Benachteiligung verschränkt (53).

2.4. Medikation

Unter den verschriebenen Medikamenten für meine Studienpopulation findet sich ein überraschend hoher Anteil an Schmerzmitteln, die zusammen mehr als 20 % aller Arzneimittelverordnungen ausmachten. Mehr als ein Drittel meiner Population erhielt innerhalb eines Jahres min-

destens ein Rezept für Ibuprofen, verglichen mit etwa einem Fünftel der gesetzlich krankenversicherten Bevölkerung (54). Ähnliche Ergebnisse wurden von Kahl und Frewer (55) aus einer Stichprobe in einer Aufnahmeeinrichtung in Bayern berichtet.

In meinen Daten, sowie in ähnlichen Studien (23, 11) wurden Diagnosen von Erkrankungen des Bewegungsapparates und unspezifischer Schmerzsymptome bei Behandlungsanlässen von Asylsuchenden häufig festgestellt. Eine Ursache dafür könnte sein, dass Schmerzen ohne somatisch fassbare Ursache ein häufiges Symptom von insbesondere unbehandelten psychischen und psychosomatischen Erkrankungen sind (56). Frühere Studien und meine eigene Untersuchung haben gezeigt, dass unter Asylsuchenden bei solchen Erkrankungen ein hoher ungedeckter Behandlungsbedarf besteht (57). Der große Anteil an Verschreibungen von Schmerzmitteln könnte also u. a. Ausdruck von Fehlversorgung psychischer Erkrankungen sein.

Eine andere Erklärung könnte in der Formulierung des §4 AsylbLG liegen, in dessen erstem Absatz es heißt, dass Asylsuchende Anspruch auf Behandlung von „akuten und schmerzhaften Erkrankungen“ haben (16). Dies wird häufig dahingehend fehlinterpretiert, dass Asylsuchende nur symptomatisch oder mit Schmerzmitteln zu behandeln seien (58). Dies könnte insbesondere der Fall sein, wenn Ärzt*innen unsicher sind, welche Leistungsansprüche ihre Patient*innen tatsächlich haben (27), oder wenn sie nicht willens oder in der Lage sind, sich für ihre Patient*innen gegenüber den zuständigen Behörden einzusetzen, um eine angemessene Behandlung zu ermöglichen und Barrieren im Zugang zu Versorgung zu überwinden (24, 29). Forscher*innen, die sich mit der Wahrnehmung des Gesundheitssystems durch Asylsuchende befasst haben, haben häufige Verordnungen von Schmerzmitteln als Symbol für „*das Desinteresse von und die Ablehnung durch das Gesundheitssystem*“ (59) beschrieben, da sie feststellten, dass die Verschreibung von Schmerzmitteln ein häufiges Merkmal von gescheiterten Arzt-Patienten-Interaktionen mit Asylsuchenden ist (24). Der individuelle ärztliche Handlungsspielraum ist beeinflusst durch vorgelagerte soziale Prozesse auf der speziellen Ebene, hier besonders durch die Vorgaben des AsylbLG und dessen lokale Umsetzung, aber auch durch kulturelle Prozesse wie die Sozialisierung und Haltung von Ärzt*innen bezüglich der Nichtdiskriminierung von Patient*innen (40).

2.5. Kostenanalysen

In meiner Studie waren die Gesamtkosten für alle medizinischen Leistungen pro Personenjahr mit 1 534€ viel niedriger als für die gesetzlich krankenversicherte Bevölkerung in Deutschland, für die diese Kosten pro Person im Jahr 2015 mit 3 019 € angegeben wurden (60). Die jährlichen Gesamtkosten für die medizinische Versorgung pro Personenjahr in meiner Kohorte waren fast 20 % niedriger als in ähnlichen Kohorten von Asylsuchenden (17, 35, 61). Die größten relativen Unterschiede bei den Kostenbereichen waren mit niedrigeren Kosten in meiner Kohorte in den

Bereichen der ambulanten Versorgung und der Zahnarztversorgung zu verzeichnen. Andererseits entstand ein sehr hoher Anteil von 55 % aller Kosten im stationären Sektor, insbesondere durch notfallmäßige Krankenhausaufnahmen, die 37 % aller Kosten medizinischer Versorgung der Studienpopulation ausmachten. Im Kontrast dazu entstanden bei gesetzlich Versicherten nur 35 % der Gesamtkosten medizinischer Versorgung im stationären Sektor (60).

Auch hier lassen sich diese Unterschiede durch Effekte von Prozessen auf der höheren Ebenen erklären. Auf der speziellen Ebene sind die organisatorischen Zugangsbarrieren für das Individuum in den Bereichen ambulante und zahnärztliche Versorgung aufgrund der lokalen Umsetzung des AsylbLG mit dem Behandlungsscheinverfahren am größten. Dagegen liegt bei notfallmäßiger und stationärer Versorgung die Verantwortung für die Beantragung der Kostenübernahme beim Krankenhaus. Es zeigen sich also mit der Verschiebung der Inanspruchnahme von präventiver und ambulanter hin zu notfallmäßiger und stationärer Versorgung Zeichen eines Effekts der beschriebenen vielfältigen Zugangsbarrieren zu ambulanten und präventiven medizinischen Leistungen und Hinweise auf eine bestehende Fehlversorgung im ambulanten Bereich.

2.6. Psychische Erkrankungen

Obwohl viele Forschende von einem hohen Bedarf an Versorgung psychischer Erkrankungen bei Geflüchteten berichten (8, 13, 62), war in den Sekundärdaten die Prävalenz psychologischer Diagnosen in meiner Stichprobe niedrig und der Anteil der Personen, die Kontakt zu Psychotherapeut*innen hatten, äußerst gering. Im fragebogengestützten Screening einer Stichprobe meiner Population zeigte sich jedoch, dass ein weitaus größerer Anteil der Asylsuchenden Symptome verschiedener psychischer Störungen aufweist, als diagnostiziert werden. Weiterhin zeigte sich in den Sekundärdaten, dass von denjenigen Patient*innen, die im Gesundheitssystem diagnostiziert werden, viele überhaupt keine Behandlung und nur sehr wenige eine Psychotherapie erhalten. Daraus lässt sich schließen, dass ein erhebliches Defizit in der Versorgung psychischer Erkrankungen bei Asylsuchenden besteht.

Vergleicht man meine Ergebnisse mit Studien zur Situation von gesetzlich Krankenversicherten mit psychischen Beschwerden, so zeigt sich, dass die Situation von Asylsuchenden außergewöhnlich schlecht ist: Während bei gesetzlich Krankenversicherten zwischen 40 % und 75 % der Patient*innen mit z. B. depressiven Symptomen die entsprechende Diagnose im Gesundheitssystem erhalten (63), lag dieser Anteil in meiner Population nur bei etwa 5 %. Dies könnte individuell auf Sprachbarrieren und auf der speziellen Ebene etwa auf für Ärzt*innen ungewohnte soziokulturelle Prägungen der Präsentation von Symptomen (8, 33) oder Probleme im Zusammenhang mit dem irregulären Versicherungsstatus der Patient*innen (4) zurückzuführen sein.

In Anbetracht der hohen Prävalenz psychischer Beschwerden bei Asylsuchenden erscheint die Einführung von Screening-Maßnahmen als Intervention auf der speziellen Ebene ratsam. In der Tat empfiehlt die nationale Leitlinie für Depressionen ein Screening von Hochrisikopopulationen (64) und die EU-Richtlinie zur Aufnahme von Geflüchteten (2013/33/EU) fordert ausdrücklich die Durchführung von Screening-Maßnahmen zur Identifizierung von "Antragstellern mit besonderen Aufnahmebedürfnissen" (65). Die vorgestellten Daten unterstützen diese Forderungen nachdrücklich und unterstreichen die Notwendigkeit einer systematischen Umsetzung von Verfahren zur frühzeitigen Identifizierung von Asylsuchenden mit psychischen Beschwerden und zur Erleichterung ihrer Überweisung in eine angemessene Behandlung.

Auch die Behandlung, die Asylsuchende nach der Diagnose erhalten, scheint unzureichend zu sein. Während praktisch alle gesetzlich krankenversicherten Patient*innen in Deutschland, die z. B. an einer Depression leiden, entweder eine medikamentöse Therapie, eine verbale Intervention oder beides erhalten (66, 67), erhielten in meiner Kohorte 28 % aller Patient*innen mit dieser Diagnose überhaupt keine Therapie. Ein überraschender Befund ist der hohe Anteil von Patient*innen, die von Fachärzt*innen für Psychiatrie behandelt werden, im Gegensatz zu der sehr geringen Zahl von Psychotherapien: Offenbar verzichten viele psychiatrische Fachärzt*innen auf eine leitliniengerechte Therapie und ziehen eine medikamentöse Behandlung einer Psychotherapie vor. Auch hier zeigt sich die Determination der individuellen Behandlungssituation durch vorgelagerte Prozesse. So ist beispielsweise die Beantragung einer Kostenübernahme für Dolmetscher*innen aufgrund der administrativen Beschränkungen schwierig und zeitaufwändig (68, 69). Weiterhin wirkt sich hier die Gatekeeperfunktion der Sozialämter aus: Es wurde berichtet, dass bis zu 35 % der Anträge auf Kostenerstattung für Psychotherapie bei Asylsuchenden abgelehnt werden (70), im Vergleich zu nur 1-3 % bei gesetzlich versicherten Patient*innen (71).

2.7. Strukturelle Gewalt

In der Diskussion dieser verschiedenen Kennzahlen medizinischer Versorgung wird deutlich, dass die gesundheitliche Benachteiligung von Asylsuchenden auf mehreren Ebenen strukturell determiniert ist: Erstens sind die Prozesse zu nennen, die im Herkunftsland zur Migration führen. Zweitens sind viele Asylsuchende vor, während und nach ihrer Flucht zahlreichen Risikofaktoren für viele Erkrankungen ausgesetzt. Drittens werden Asylsuchende durch juristische und administrative Hürden wie das AsylbLG am Zugang zum Gesundheitssystem gehindert. Viertens werden sie im Gesundheitssystem unterdiagnostiziert, obwohl medizinische Leitlinien und gesetzliche Verpflichtungen eine besondere Aufmerksamkeit bei Asylsuchenden anmahnen. Fünftens erhalten sie nach gestellter Diagnose oft keine oder nur eine mangelhafte Behandlung.

Alle diese Prozesse sind Teil gesellschaftlicher Organisierung und damit menschengemacht: Sie sind zu einem großen Teil ein Ergebnis der EU-Grenzpolitik (7, 72) oder resultieren direkt aus politischen Entscheidungen auf Bundes-, Landes- oder Kreisebene (20), während die administrativen Barrieren in der medizinischen Versorgung von Asylsuchenden bei der Verabschiedung des Asylbewerberleistungsgesetzes im Jahr 1993 sogar ausdrücklich gewollt waren (20, 73).

Zusammenfassend halte ich es daher für gerechtfertigt, die mangelhafte medizinische Versorgung von Asylsuchenden als eine Form der strukturellen Gewalt zu betrachten. Dieser Begriff wurde erstmals von dem Soziologen Johan Galtung (74) eingeführt und beschreibt, wie "historisch bedingte (und oft wirtschaftlich motivierte) Prozesse und Kräfte [...] sich verschwören" (75), um Risikofaktoren, Morbidität und frühen Tod in bestimmten Bevölkerungsgruppen zu bündeln (76). Das Konzept verdeutlicht, wie soziale, politische, wirtschaftliche und infrastrukturelle Prozesse zu körperlichen und psychischen Schäden bei bestimmten Personengruppen führen können. Dies ist auch zentraler Bestandteil Breilh's Theorie der sozialen Determination. Sie erklärt die Verwobenheit dieser gesellschaftlichen Prozesse und wie in ihrem Zusammenspiel die Voraussetzungen für die individuelle Entstehung von Krankheit und Gesundheit geschaffen werden. So kann erklärt werden, wie die gezeigte Benachteiligung in medizinischen Outcomes Folge und Verkörperung von gewaltsamer Benachteiligung in allgemeinen, speziellen und individuellen Prozessen ist. Sie sind also nicht vordringlich Zeichen individuellen Leidens, Widerspiegelung von schlechtem Gesundheitsverhalten oder Versagen des Bemühens einzelner Akteure um eine qualitativ hochwertige Versorgung, sondern Ausdruck des gewaltsamen Charakters der sozialen Organisierung und damit eines Menschenrechtsproblems, einer gesellschaftlichen Verfehlung des Versprechens des "erreichbaren Höchstmaß an Gesundheit" für alle (1).

Aus der Feststellung der Ungleichheit medizinischer Kennzahlen und der Annahme, dass die Grundbedingungen der individuellen Entstehung von Krankheit und Gesundheit Manifestation von sozialen Prozessen auf den höheren strukturellen Ebenen sind, ergibt sich die Schlussfolgerung, dass Interventionen in die vorgelagerten Prozesse notwendig sind, um die gesundheitliche Benachteiligung von Asylsuchenden auszugleichen. Während sich die Medizin zumeist nur mit Interventionen und Outcomes auf der individuellen Ebene beschäftigt, ist für einen Ausgleich der Benachteiligung von Asylsuchenden wichtig, auch auf höheren Ebenen zu handeln (77). Auf spezieller Ebene hätte die Einführung eines flächendeckenden Screenings auf psychische Erkrankung, verbunden mit dem Ausbau psychotherapeutischer Kapazitäten und der Schaffung eines Anspruchs auf Dolmetscherleistungen das Potential die Mangelversorgung psychischer Erkrankungen zu reduzieren (70, 78). Eine Abschaffung des AsylbLG und die Wiedereingliederung von Asylsuchenden in die gesetzliche Krankenversicherung hätte beispielsweise durch die Ausweitung des

Spielraums von Behandelnden und den Abbau von Hürden im Zugang zum Gesundheitswesen großes Potential zur Verbesserung der medizinischen Versorgung und damit auch von medizinischen Outcomes (19, 79). Auf der allgemeinen Ebene könnte eine Abwendung von migrationsverursachender und gleichzeitig -abwehrender Politik, hin zu einer Politik der globalen sozialen Gerechtigkeit auch gesundheitlich langfristig präventiv wirksam sein (36, 75).

2.8. Stärken und Limitationen

Mit dieser Forschung will ich einen Einblick in die Inanspruchnahme der medizinischen Versorgung unter den Bedingungen des durch das AsylbLG eingeschränkten Zugangs zum Gesundheitssystem geben. Als große Stärke dieser Studie erachte ich, dass mit der Verwendung von Abrechnungsdaten eines Sozialamtes ein Ansatz gezeigt wird, der bisher wenig für die medizinische Forschung verwendet worden ist. Mit diesem sekundärdatenbasierten Ansatz können Häufigkeiten, Prävalenzen und andere Schlüsselmerkmale der Inanspruchnahme der medizinischen Versorgung auf individueller Ebene aufgezeigt werden. Eine weitere Stärke ist die Vollständigkeit der Daten, insbesondere in Bezug auf medizinische Leistungen, da nicht davon auszugehen ist, dass stattfindende Leistungen im Gesundheitssystem nicht abgerechnet werden. Aus dieser Vollständigkeit resultiert eine gute Vergleichbarkeit mit der Berichterstattung der gesetzlichen Krankenkassen. Die Ergebnisse können eine Ausgangsbasis darstellen, mit der ähnliche Daten aus verschiedenen Landkreisen mit unterschiedlichen strukturellen Merkmalen oder aus unterschiedlichen Zeiträumen oder Daten aus anderen Bevölkerungsgruppen verglichen werden können, um Maßnahmen zur Verbesserung der gesundheitlichen Situation dieser strukturell benachteiligten Bevölkerungsgruppe zu entwickeln und zu bewerten.

Die vorgelegten Sekundärdaten allein lassen jedoch nur eingeschränkt Rückschlüsse auf die Gründe für charakteristische Muster bei der Inanspruchnahme der medizinischen Versorgung zu. Die Inanspruchnahme von medizinischen Leistungen ist nicht deckungsgleich mit dem tatsächlichen Bedarf an medizinischen Leistungen und unterscheidet sich bei unterschiedlich strukturierter Zugangsmodalitäten (19). Daher müssen die Daten vor dem Hintergrund ihrer Entstehung und der gesellschaftlichen Rahmenbedingungen interpretiert werden.

Meine Studienpopulation entsprach hinsichtlich der Alters- und Geschlechterverteilung der allgemeinen Demografie der Menschen, die zu dieser Zeit als Asylsuchende nach Deutschland kamen. Im Vergleich mit der gesetzlich versicherten Bevölkerung in Deutschland waren junge und männliche Asylsuchende in der Stichprobe überrepräsentiert, wodurch die Vergleichbarkeit mit dieser Population eingeschränkt ist (80).

Außerdem ist die Interpretation von Sekundärdaten durch ihre Herkunft limitiert, da diese nicht zu Forschungszwecken, sondern zur Abrechnung medizinischer Leistungen erstellt werden und deshalb durch finanzielle Interessen der Leistungserbringer verzerrt sein können (81).

Die vorgestellte Querschnittsstudie zum Vergleich von Bedarf und stattfindender Diagnostik und Therapie psychischer Erkrankungen weist weitere spezifische Limitationen auf. Die Schätzung der Anteile in der Stichprobe basiert auf Screening-Instrumenten, die Berichten zufolge eine Spezifität zwischen 73 % und 93 % aufweisen (82, 83) und daher die Prävalenz von Asylsuchenden mit psychischen Erkrankungen überbewerten könnten. Bei der Interpretation der Ergebnisse ist es daher wichtig, den Unterschied zwischen Screening-Befunden und ärztlich oder psychotherapeutisch gestellten Diagnosen zu beachten. Eine weitere Limitation der Querschnittsstudie ergibt sich aus der Art der Rekrutierung. Probanden wurden in den kommunalen Sammelunterkünften sowie nach Sprachkenntnissen der häufigsten Sprachen rekrutiert. Dies könnte zu einer Verzerrung beim Vergleich mit den Abrechnungsdaten führen, die die nicht selektierte Population aller Asylsuchenden in Halle (Saale) umfassen.

2.9. Schlussfolgerungen

Empirische Daten über die Inanspruchnahme der medizinischen Versorgung durch Asylsuchende sind für die Verbesserung von Versorgungsprozessen und -ergebnissen unerlässlich. Bislang folgen politische Entscheidungen zur Versorgung von Asylsuchenden in Deutschland weder medizinischen Überlegungen noch empirischen Erkenntnissen, was sich nachteilig auf die Gesundheit der Asylsuchenden auswirkt. Mit dieser Analyse von Abrechnungsdaten des städtischen Sozialamtes habe ich eine Datenquelle zur Untersuchung der Inanspruchnahme der medizinischen Versorgung durch Asylsuchende vorgestellt. Anhand von Mustern der Inanspruchnahme der medizinischen Versorgung und durch den Vergleich mit Primärdaten aus derselben Population identifiziere ich besondere Merkmale: eine geringe Inanspruchnahme der ambulanten Versorgung, ein erheblicher geschlechtsspezifischer Unterschied in der Inanspruchnahme fast aller Leistungen und Diagnosegruppen, ein hoher Anteil von Schmerzmitteln an den Arzneimittelverordnungen und ein hoher Anteil der Kosten, die im stationären Sektor entstehen. Insbesondere psychische Beschwerden sind bei Asylsuchenden sehr häufig, jedoch erhält nur ein sehr kleiner Teil dieser Bevölkerungsgruppe die entsprechenden Diagnosen und Behandlungen. Die Benachteiligung von Asylsuchenden bei medizinischen Outcomes hat ihre Ursache in der strukturellen Gewalt gesellschaftlicher Verfasstheit und sollte Ziel von Interventionen sein, die auf die vorgelagerten sozialen Prozesse einwirken, um die Umsetzung des Menschenrechts auf das Höchstmaß an Gesundheit und die Inanspruchnahme medizinischer Versorgung auch für Asylsuchende möglich zu machen (1).

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Thesen

1. Abrechnungsdaten eines städtischen Sozialamtes als bisher wenig erschlossene Datenquelle sind geeignet zur Beschreibung der Inanspruchnahme der medizinischen Versorgung durch Asylsuchende.
2. Hausärzt*innen waren die ambulant am meisten konsultierte Fachrichtung, mit einer Einjahresprävalenz der Asylsuchenden, die mindestens einen Kontakt hatten von 45,7 % [95 %-KI: 43,3-48,1 %]. An zweiter Stelle folgen Laborärzt*innen (28,8 % [26,5-21,2 %]) und Notaufnahmen (23,4 % [21,4-25,6 %]).
3. Die Diagnosen mit der höchsten Einjahresprävalenz waren "J06: Akute Infektionen der oberen Atemwege" mit 16,1 % [14,5-18,0 %], gefolgt von "R10: Unterleibs- und Beckenschmerzen" (15,6 % [13,9 17,4 %]) und "M54: Rückenschmerzen" (13,8 % [12,2-15,6 %])
4. Die Anzahl der Behandlungsanlässe pro Person und Jahr war sehr schief verteilt: Während viele Asylsuchende in einem Jahr keinen einzigen ambulanten Fall generierten (32,5 % [30,1-35,0 %]), hatten wenige (2,8 % [1,9-3,9 %]) 20 oder mehr Fälle.
5. Die Einjahresprävalenz von mindestens einer Medikamentenverordnung war 57,2 % [54,7-59,7 %] und lag bei Frauen deutlich höher (70,0 % [65,5-74,4 %]) als bei Männern (52,6 % [49,7-55,6 %]).
6. Vier der sieben am häufigsten verschriebenen Arzneimittel sind geläufige Analgetika (Ibuprofen, Metamizol, Paracetamol, Diclofenac), die zusammen etwa 21 % aller Verordnungen ausmachen.
7. Obwohl in der Querschnittstudie 59,4 % der Asylsuchenden positiv für entweder PTBS, Angststörungen oder Depression gescreent wurden, erhielten nur 4,9 % aller Asylsuchenden eine entsprechende Diagnose im Gesundheitssystem.
8. Von den im Gesundheitswesen mit PTBS, Angststörungen oder Depression diagnostizierten Patient*innen erhielten wiederum 45,3 % keine entsprechende Behandlung und 37 % nur eine medikamentöse Behandlung. Psychotherapie erhielten nur 1 % dieser Patient*innen.
9. Unter- und Fehlversorgung insbesondere psychischer Erkrankungen bei Asylsuchenden sind unter anderem Folge von vorgelagerten sozialen Prozessen wie der Exklusion aus der Krankenversicherung durch das Asylbewerberleistungsgesetz.

RESEARCH ARTICLE

Open Access



Outpatient health care utilization and health expenditures of asylum seekers in Halle (Saale), Germany - an analysis of claims data

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Abstract

Background: Asylum seekers are a vulnerable group with special needs in health care due to their migration history and pre-, peri- and postmigratory social determinants of health. However, in Germany access to health care is restricted for asylum seekers by law and administrative regulations.

Methods: Using claims data generated in the billing process of health care services provided to asylum seekers, we explore their utilization of health care services in the outpatient sector. We describe the utilization of outpatient specialties, prevalences of diagnoses, prescribed drugs and other health care services, as well as total costs of health care provision.

Results: The estimated prevalence for visiting an ambulatory physician at least once per year was 67.5% [95%-Confidence-Interval (CI): 65.1–69.9%], with a notably higher prevalence for women than men. The diagnoses with the highest one-year prevalence were “Acute upper respiratory infections” (16.1% [14.5–18.0%]), “Abdominal and pelvic pain” (15.6% [13.9–17.4%]) and “Dorsalgia” (13.8% [12.2–15.5%]). A total of 21% of all prescriptions were for common pain killers. Women received more diagnoses across most diagnosis groups and prescribed drugs from all types than men. Less than half (45.3%) of all health care costs were generated in the outpatient sector.

Conclusion: The analysis of claims data held in a municipal social services office is a novel approach to gain better insight into asylum seekers’ utilization of health services on an individual level. Compared to regularly insured patients, four characteristics in health care utilization by asylum seekers were identified: low utilization of ambulatory physicians; a gender gap in almost all services, with higher utilization by women; frequent prescription of pain killers; and a low proportion of overall health care costs generated in the outpatient sector. Further research is needed to describe structural and individual factors producing these anomalies.

Keywords: Secondary data analysis, Claims data, Asylum seekers, Health care utilization, Health care expenditures, Restricted access

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Introduction

Background

Health care utilization is structured by health care needs on one hand and the availability of accessible, acceptable high quality health care services on the other [1]. In general, the health care needs of asylum seekers in Germany are very similar to those of the general population [2–4]. Nevertheless, due to upstream factors before, during and after migration [5, 6], asylum seekers are particularly vulnerable for a number of health risks [4, 5]. In consequence, there are some health care needs particular to asylum seekers [4, 7–10]: studies have shown higher prevalence of psychiatric disorders [11–13], communicable diseases [3, 14, 15], and problems of maternal health [12, 16].

Even though these special needs of asylum seekers are well established in the literature and the German health care system is able to provide acceptable, high quality care, with the *Asylum Seekers' Benefits Act* (“*Asylbewerberleistungsgesetz*”, ASBA) German law creates barriers in access to health care [17]. The ASBA, passed into law in 1993, regulates the entitlement to health care for asylum seekers and people whose request for asylum was denied. The ASBA excludes this group from the statutory health insurance, appoints the municipal authorities with carrying health care costs and restricts entitlement to treatment to certain health care needs, namely, acute and painful conditions, as well as maternal care and certain preventative measures, e.g., vaccinations (§4) [17, 18]. Other treatments can be reimbursed if the social services office accepts written applications, arguing them as being essential in securing the patients' health (§6) [17].

The restrictions in the ASBA are worded vaguely and are subject to the interpretation of the local social services office. The local authorities are relatively free in how to organize these provisions, and the practical implementation and approval practices differ greatly from district to district [19], which is why an asylum seeker's chance of receiving adequate health care has been described as strongly depending on the chance of being distributed to a certain region in Germany [19, 20]. Some districts have chosen to task the statutory health insurance with organizing the cost reimbursement to the health care providers and have handed out electronic health insurance cards, equivalent to those of the statutory health insurance. In other districts, the municipal social services office hands out treatment vouchers on application for varying validity periods and differing coverage [19, 21]. The intricate process of voucher application and provision has to be passed by the asylum seeker in a time of illness, and it is as complicated by the asylum seekers' frequent lack of knowledge about the legal framework and its implementation, lack of

geographic mobility, and language barriers as the process of obtaining medical care afterwards. Therefore, it represents a significant barrier in access to health care for asylum seekers in itself [10, 19, 22]. In addition, the subsequent cost reimbursement process to the service providers creates wariness among physicians to treat asylum seekers as they fear not being reimbursed [19].

In addition, asylum seekers' access to health services in Germany is complicated by modulating factors that are shared with other groups of migrants. Studies have identified limited geographic mobility [10, 23], language barriers [10, 23–25], lack of knowledge about the health care system for asylum seekers [10, 24], care providers' lack of knowledge about their patients' legal situation and realities of life [19, 24, 26] and discrimination and racism [24, 25, 27] as factors hindering asylum seekers in accessing adequate health care.

These restrictions and barriers impair the utilization of health services [2, 3, 19], alienate patients from the health care system [9, 10] and increase overall costs of health care provision to this group in the long term [18, 22, 28]. Nevertheless, little is known about the specifics of the utilization of health care by asylum seekers and the effects of these restrictions and barriers.

While the described structural factors determine the realization of access to health care, more individual factors also influence the interaction between the asylum seekers and the health system. Health literacy, as the individuals' knowledge about health-related and health-seeking behaviour, may vary greatly among asylum seekers according to their educational background and origin country [29, 30]. Differing perceptions on the relations and roles of the asylum seeker and the care providers can lead to conflicts and hinder appropriate care [29, 31]. Conflicting perceptions on aetiologies and urgency of treatments have also been described to arise between patients and care providers from differing cultural backgrounds [10, 29, 31]. These “cultural factors” and their consequences for the clinical practise have been subject to debate [32–34].

Calls for monitoring of and data on health and health care utilization by this group have been voiced repeatedly [14, 35, 36] to improve the knowledge base and enable effective surveillance of the health status of this vulnerable group and the effects of policy decisions and interventions in health care for this population.

The local context

Halle (Saale) is a medium-sized city with approximately 240,000 inhabitants, located in the east of Germany. Being an urban area, the density of medical facilities is high, and public transport is readily available, different from other more rural districts, where limited mobility has been

described as a factor impairing asylum seekers' utilization of health care [10, 23, 37]. To our knowledge, other structural mediating factors of access to health care do not differ much from other districts in Germany.

In Halle (Saale), as in most districts in Saxony-Anhalt, the social services office hands out health vouchers [10], but different from other districts, these are handed out unconditionally once every quarter, and they are valid until the end of the quarter [38]. With these vouchers the treating physicians have the promise that treatments covered in §4 ASBA will be paid for, but more extensive elective treatment options such as hospital treatments or therapeutic remedies ("Heilmittel") have to be applied for in advance. Emergency treatments can be provided without prior application, but the care provider has to apply for cost reimbursement later. All these applications are then checked by the medically untrained staff of the social services office [10, 37]. If approved, the social services office reimburses the care providers after receiving the bills.

As the treatment vouchers handed out in Halle (Saale) have a longer period of validity than those handed out in other districts, and as they are handed out almost unconditionally, we consider it easier for asylum seekers from Halle (Saale) to access appropriate health care here than in most other districts that have implemented the voucher model. Yet the social services office still functions as a gate keeper compared to other districts that have tasked the statutory health insurance with handing out electronic health insurance cards to asylum seekers, facilitating access to adequate health care considerably as no application for a voucher is necessary in a time of illness.

Aims

With our study we want to answer the calls for contributions to the knowledge base about asylum seekers' health care utilization. This explorative study aims to describe the outpatient health care utilization by asylum seekers in Halle (Saale) and the total health expenditures for this population. By analysing claims data generated in the billing process of health services held by the municipal social services offices, we highlight the unique potential of this data source to monitor health care utilization by asylum seekers. Drawing on other sources of utilization data, we try to identify anomalies and generate hypotheses that warrant further research.

Empirical data on health care utilization by asylum seekers is essential to improve provision processes and health outcomes. With our study, we want to support policy makers and health care professionals in facilitating equitable access to health care for asylum seekers by contributing to a knowledge base about asylum seekers' health care utilization.

Methods

This retrospective study uses claims data of the social services office in Halle (Saale), Germany, to describe asylum seekers' utilization of health services in the year 2015. We analyse the contacts between asylum seekers and the health system, i.e., visited specialties, diagnosed morbidity, services provided such as prescribed medication or other treatments, and costs thereof. With this population-based data set, we can show frequencies, prevalences and other key characteristics of the utilization of health care on an individual level unrestrained by selection or recall bias.

Study population

Halle (Saale), Germany was chosen as a study site because of the pre-existing cooperation between our research group and the social services office that enabled access to the data. All asylum seekers registered with the social services office of Halle (Saale), Germany, and therefore entitled to provisions under the ASBA at any time in 2015 for at least 1 day were included in this analysis, whether they had received any medical services or not.

Data source

Because of the aforementioned organization of the provision and payment of health care for asylum seekers through the municipal social services offices, these offices hold not only the demographic data of each entitled asylum seeker but also the complete billing documents of all health care that is provided to this population. The bills are stored in the social services office in paper form. The information of the paper-based bills was entered into a MySQL-database through a custom-made web-based data entry form. The data were anonymized in the process of digitalization. Data cleansing and analyses were performed using SAS/STAT® 9.4 [39].

To quantify the error rate of typing in the data, 495 bills of ambulatory physicians with 96 variables of mixed types (dates, open-text, continuous) each were randomly selected for double data entry. A comparison of the two sets of data revealed an error rate of 0.35% on a per-variable basis, which was lower than comparable results from the literature [40].

Variables

For each individual matching the above-mentioned inclusion criteria, the social services office provided information on gender, date of birth, country of origin and first and, where available, last day of entitlement to services under the ASBA, from which we calculated time under observation in our study as days of entitlement in the year 2015.

Each recorded billing document contained information on the first date of contact with the billing doctor's

office or hospital, the name and specialization of the billing physician or hospital, procedure codes classified through the standardized classification manuals for ambulatory physicians (EBM) and dentists (BEMA), respectively [41, 42], diagnoses classified through ICD-10 [43], PZN-Codes for prescribed pharmaceuticals [44], other medical services described in text, and the costs that were billed with the social services office. Data in prescription documents of therapeutic remedies and medical aid products were recorded as classified in the statutory manuals *catalogue of non-physician care* (“Heilmittelkatalog”) [45] and *catalogue of medical aid products* (“Hilfsmittelkatalog”) [46], respectively.

Outpatient services are billed per case. A case is generated by at least one visit of the patient to one doctor or clinic in a quarter and contains all contacts and services provided during that quarter. Exempted from this rule are laboratory physicians, who are consulted by all other specialties for diagnostic tests and bill each set of diagnostic tests separately. Therefore, one patient can generate up to four cases with one ambulatory physician in one year, but a virtually unlimited number of cases with laboratory physicians. Physicians’ specialties were taken from the identifying number unique to each ambulatory physician with the last two digits describing the physicians’ specialty [47]. This number is noted on all prescriptions. On bills from ambulatory offices, this number was not available. For doctors’ offices with more than one specialty, we derived the specialty from specialty-specific procedure codes in the EBM. For analysis, we grouped general practitioners, family doctors and internists who work as family doctors under the label “family doctors”. In Germany, obstetrics and gynaecology is practised by a single specialty and are therefore not being differentiated here.

All specialties have to state legitimating diagnoses in their bills, except for laboratories and diagnostic radiologists. In the analysis of diagnoses, we counted how many patients received a unique diagnosis at least once in the whole year, discounting multiple diagnoses of the same disease and regardless of which physician made the diagnosis, as we could not differentiate if a diagnosis was made for multiple accounts of one illness or if it was ongoing. Physicians are required to qualify the diagnoses as either affirmed (G), suspected (V), ruled out (A) or “symptom free state after diagnosis” (Z). Except when stated otherwise, diagnosis codes were excluded that were qualified as a ruling out of this disease. Thus, we counted only reports of a suspected or affirmed diagnosis or of a symptom-free state following a diagnosis.

For pharmaceuticals, PZN-Codes that describe unique sold units were transcoded to the Anatomical Therapeutic Chemical (ATC) Classification System [48], which describes active ingredients grouped by area of therapeutic

use. For analysis, the fifth level was used for individual drugs and the second level for therapeutic subgroups. In this article, we took from inpatient bills only the billed costs and reason for admission, which qualifies emergency or regular cases [49].

Statistical procedures

For each analysis, we first provide descriptive statistics to show the crude absolute and relative frequencies of diagnoses and services. Second, we show rates per person-year to account for the vastly differing times of observation, as individual periods of entitlement do overlap with our study period differently. As the distributions of counted events among individuals were highly skewed, we then show percentages of the population having received a certain service or diagnosis at least once over the course of one year of observation. These percentages or one-year estimates are calculated by using Kaplan-Meier analysis to account for shorter observation times (See Supplement 2). These estimates represent administrative one-year prevalences for the underlying population for each diagnosis or service and are labelled as such.

Ethics approval

This secondary data analysis uses administrative data that fulfils all necessary requirements of the Federal data protection act of the Federal Republic of Germany. As this study only uses anonymized secondary data, according to national guidelines, no clearance by the ethics committee was necessary [50].

Results

Demography

In total, 4107 asylum seekers were included in the study (men: $n = 3004$, 73.1%; women: $n = 1103$, 26.9%). People originated from a total of 67 countries, most of them from Syria ($n = 1957$, 47.7%), Afghanistan ($n = 354$, 8.6%), Iran ($n = 180$, 4.4%), Somalia ($n = 173$, 4.2%) and Benin ($n = 168$, 4.1%). A total of 37 people were of unclear origin, and seven were stateless. The median time under observation during the year 2015 was 106 days (min: 1; max: 365). All 4107 people in sum contributed 1786.6 person-years (PY; men: 1307.5PY; women: 475.7PY) during the year 2015. Gender distribution was roughly even in age groups below 15 and above 45. Between age 15 to 45 years, men were overrepresented. More details on the demographic composition are given in Table 1.

Due to changes in the demography of people coming to Germany as asylum seekers during 2015, the study population’s demography also changed in the course of the year. Most notably, the population grew from 1301 people with entitlement on January 1, 2015 to 3134

Table 1 Demographic characteristics of the study population

	Male		Female		All	
	n	%	n	%	n	%
Age						
0- < 5 yrs	154	3.75	158	3.85	312	7.6
5- < 10 yrs	118	2.87	119	2.9	237	5.77
10- < 15 yrs	110	2.68	64	1.56	174	4.24
15- < 20 yrs	344	8.38	92	2.24	436	10.62
20- < 25 yrs	655	15.95	134	3.26	789	19.21
25- < 30 yrs	601	14.63	164	3.99	765	18.63
30- < 35 yrs	424	10.32	124	3.02	548	13.34
35- < 40 yrs	249	6.06	95	2.31	344	8.38
40- < 45 yrs	154	3.75	48	1.17	202	4.92
45- < 50 yrs	113	2.75	32	0.78	145	3.53
50- < 55 yrs	42	1.02	25	0.61	67	1.63
55- < 60 yrs	17	0.41	20	0.49	37	0.9
60- < 65 yrs	9	0.22	11	0.27	20	0.49
> 65 yrs	14	0.34	17	0.41	31	0.75
Sum	3004	73.14	1103	26.86	4107	100
Country of origin						
Syria	1461	35.57	496	12.08	1957	47.65
Afghanistan	244	5.94	110	2.68	354	8.62
Iran	115	2.8	65	1.58	180	4.38
Somalia	109	2.65	64	1.56	173	4.21
Benin	141	3.43	27	0.66	168	4.09
India	88	2.14	33	0.8	121	2.95
Guinea-Bissau	101	2.46	15	0.37	116	2.82
Niger	94	2.29	7	0.17	101	2.46
Russian Federation	49	1.19	49	1.19	98	2.39
Iraq	61	1.49	35	0.85	96	2.34
Unknown/missing	26	0.63	11	0.27	37	0.9
Others	515	12.54	191	4.65	706	17.19
Sum	3004	73.14	1103	26.86	4107	100
Time under observation						
Less than 30 days	249	6.06	125	3.04	374	9.11
31-60 days	591	14.39	300	7.3	891	21.69
61-90 days	375	9.13	139	3.38	514	12.52
91-120 days	467	11.37	103	2.51	570	13.88
121-180 days	360	8.77	45	1.1	405	9.86
181-240 days	137	3.34	47	1.14	184	4.48
241-300 days	132	3.21	47	1.14	179	4.36
More than 300 days	693	16.87	297	7.23	990	24.11
Sum	3004	73.14	1103	26.84	4107	100

people on December 31, 2015. The percentage of Syrian nationals increased from 15.9% (January 1, 2015) to 47.2% (December 31, 2015).

Frequency of outpatient care

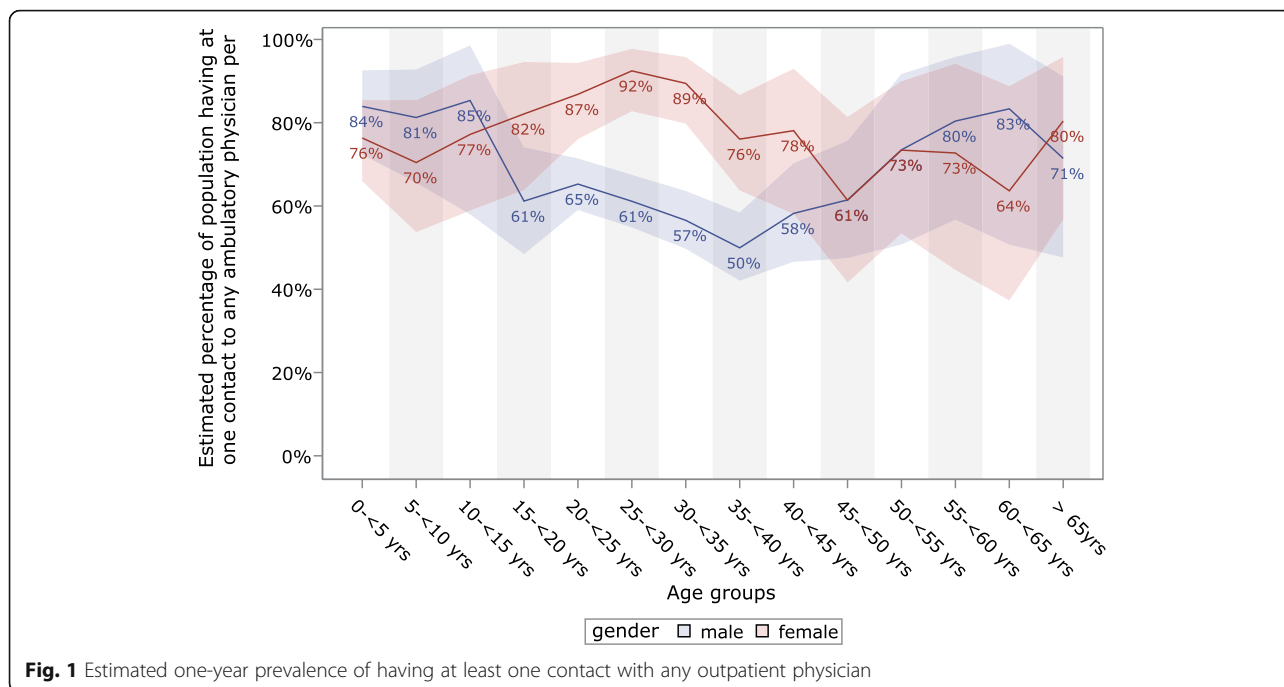
We recorded a total of 7809 billed cases from ambulatory physicians, 4555 for men and 3254 for women. This amounted to a rate of 437.9 ambulatory cases per 100 person-years (men: 348.4 cases/100PY; women: 684.0 cases/100PY) across all specialties, including visits to emergency departments. These cases were not evenly generated by all individuals. Only 46.5% of asylum seekers visited an ambulatory physician. After correction for shorter observation times through Kaplan-Meier analysis, the one-year prevalence of visiting an ambulatory physician at least once was 67.5% [65.1–69.9%]. This prevalence differs notably between age groups and gender: while 81.8% [77.9–85.5%] of women were estimated to have at least one contact with an ambulatory physician, only 62.5% [59.6–65.4%] of men had at least one contact. Similarly, 92.4% [82.7–97.8%] of all women between 25 and 30 years of age were estimated to have at least one visit to a physician, while middle-aged men (age 35 to 40) had the lowest prevalence (50.0% [42.0–58.5%]). Figure 1 shows the estimates of the age-related prevalence of people having at least one contact with an outpatient health care provider per year.

The distribution of case numbers generated by individual asylum seekers was highly skewed. While many asylum seekers did not generate a single case in one year of observation (32.5% [30.1–35.0%], very few (2.8% [1.9–3.9%]) had 20 or more cases.

Family doctors are the most consulted specialty. The one-year prevalence of people having at least one contact with a family doctor was 45.7% [43.3–48.1%]. Next are laboratory physicians (28.8% [26.5–21.2%]) and emergency departments (23.4% [21.4–25.6%]). We estimated that 65.0% [58.6–71.2%] of all patients younger than 18 years consulted a paediatrician at least once in one year, and 33.3% [29.1–38.0%] of all women of any age consulted a gynaecologist. Less than 1% (0.13% [0.04–0.44%]) of all asylum seekers visited a psychotherapist. Figure 2 shows the estimates of the one-year prevalences of having at least one contact to the most commonly consulted ambulatory specialties.

Diagnoses in outpatient care

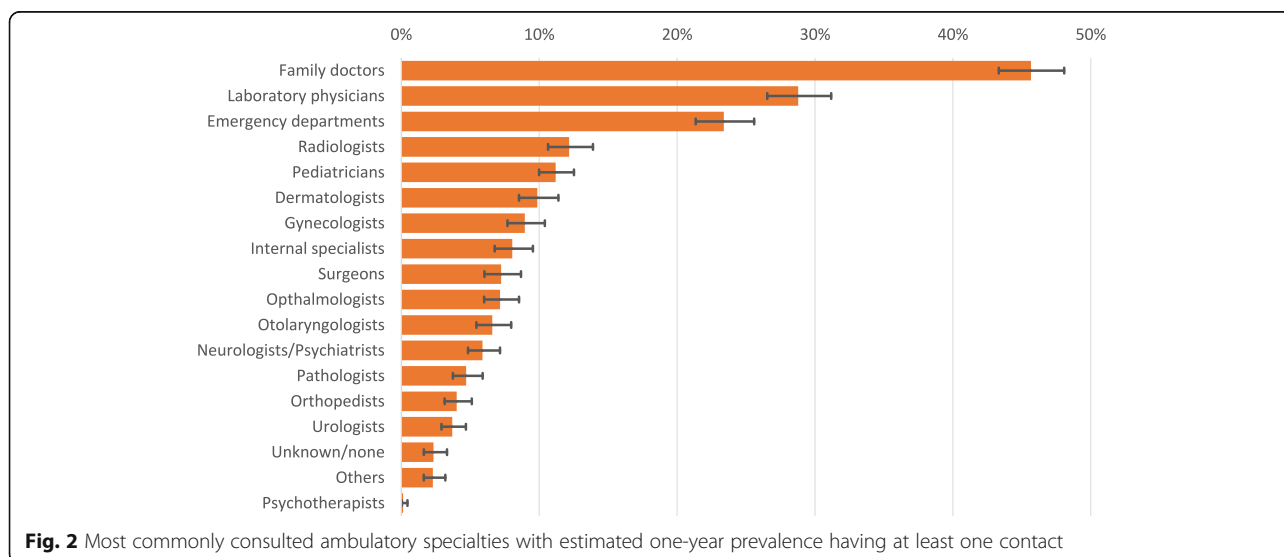
Of a total number of 17,100 ICD-10-coded diagnoses, 89.1% were marked as affirmed, 6.6% as suspected, 2.3% as ruled out and 1.4% as symptom-free. For 109 diagnosis codes (0.6%), this information was missing or invalid. In the following analyses, we excluded all diagnoses that were marked as ruled out.



The distribution of diagnosis frequencies per person was heavily skewed. While 64.1% of all persons of our study population were not once diagnosed by any ambulatory physician, 1.5% of all people received more than 20 unique diagnoses (Median: 0; third quartile: 3; maximum: 44).

The diagnosis with the highest one-year prevalence was “J06: Acute upper respiratory infections”: 16.1% [14.5–18.0%] of all asylum seekers received this diagnosis at least once per year. Next were conditions that are also common in the general German population [51, 52]: “R10:

Abdominal and pelvic pain” (15.6% [13.9–17.4%]) and “M54: Dorsalgia” (13.8% [12.2–15.6%]). The two psychiatric disorder groups “F32: Depressive episode” and “F43: Reactions to severe stress and adjustment disorders” were also diagnosed frequently with a one-year prevalence of 5.5% [4.5–6.7%] and 4.0% [3.2–5.0%]. In one year 2.8% [2.1–3.7%] of our study population was estimated to receive at least one diagnosis of the group of codes that describe Tuberculosis (A15–19). The estimated one-year prevalence of a diagnosis relating to of HIV (B20–24, U60, Z21) was 0.4% [0.2–0.8%].



Supplement 3 shows more detailed information on single diagnosis codes and diagnosis groups.

Analysis of chapters of the ICD-10 reflects the analysis of singular diagnosis codes. Table 2 shows estimated one-year prevalences of people having at least one diagnosis from each chapter, stratified for gender. The prevalences were notably higher for women than men in every chapter but one, with the largest difference in chapters “14: Diseases of the urinary system” and “3: Diseases of the blood, blood forming organs and the immune mechanism”. More men only were diagnosed with chapter “19: Injury, poisoning and certain other consequences of external causes”.

Prescriptions

The 5346 analysed prescriptions contained a total of 7989 prescribed drugs. The identifying ATC-Code was missing or invalid in 1.85% ($n = 146$) of all data entries. A total of 1485 (36.1%) patients were prescribed at least one drug. The estimated prevalence of receiving at least one prescribed drug per year was 57.2% [54.7–59.7%] and was considerably higher for women (70.0% [65.5–

74.4%]) than for men (52.6% [49.7–55.6%]). A total of 1.3% [1.2–1.5%] of all asylum-seekers were estimated to receive more than 20 prescriptions in one year. One person received a maximum of 75 prescribed drugs. Per 100 person-years, this amounted to 448.0 prescribed drugs, with 366.2 prescribed drugs per 100 PY for men and 672.9 prescribed drugs per 100 PY for women.

The most frequently prescribed drug is Ibuprofen, with 14.1% of all prescriptions. More than one third of all people were estimated to receive at least one prescription of Ibuprofen in one year. Four of the seven most frequently prescribed drugs are also mostly prescribed as painkillers (Ibuprofen, Metamizole, Paracetamol, Diclofenac), together making up 21% of all prescriptions. Third ranks Xylometazoline, the active ingredient of nasal decongestants that is almost exclusively prescribed for children (97% of all prescriptions of Xylometazoline were for people of age < 15). The same is true for *Hederae helix folium*, ranked 8th, which is the active ingredient of expectorant syrups. Mirtazapine ranks 6th, being a commonly prescribed antidepressant indicated for episodes of major depression. Supplement 4 shows the

Table 2 One-year prevalence of diagnoses by chapters of the ICD-10 (with 95% confidence intervals)

Diagnosis groups Chapter ICD-10	One-year prevalence		
	% of men [95%-CI]	% of women [95%-CI]	% of all [95%-CI]
1: Certain infectious and parasitic diseases	19.1 [17.0–21.6]	28.0 [23.9–32.6]	21.6 [19.6–23.7]
2: Neoplasms	2.6 [1.9–3.6]	10.9 [8.4–14.1]	4.9 [4.0–6.0]
3: Diseases of the blood, blood-forming organs and certain disorders inv. the immune mechanism	2.2 [1.5–3.2]	12.0 [9.4–15.4]	4.8 [3.9–6.0]
4: Endocrine, nutritional and metabolic diseases	5.4 [4.2–6.8]	17.9 [14.6–21.8]	8.7 [7.5–10.2]
5: Mental and behavioural disorders	11.8 [10.1–13.7]	21.1 [17.6–25.1]	14.2 [12.7–16.0]
6: Diseases of the nervous system	7.2 [5.9–8.8]	10.8 [8.3–14.0]	8.1 [6.9–9.6]
7: Diseases of the eye and adnexa	9.8 [8.2–11.6]	14.2 [11.2–17.9]	11.0 [9.6–12.7]
8: Diseases of the ear and mastoid process	4.4 [3.4–5.7]	8.8 [6.4–11.9]	5.6 [4.6–6.9]
9: Diseases of the circulatory system	5.2 [4.2–6.6]	12.0 [9.2–15.4]	7.1 [6.0–8.5]
10: Diseases of the respiratory system	24.5 [22.2–27.1]	36.1 [31.9–40.8]	27.6 [25.5–29.8]
11: Diseases of the digestive system	16.9 [14.8–19.3]	24.2 [20.6–28.4]	18.8 [17.0–20.8]
12: Diseases of the skin and subcutaneous tissue	14.9 [13.1–17.0]	25.3 [21.5–29.7]	17.7 [15.9–19.6]
13: Diseases of the musculoskeletal system and connective tissue	21.0 [18.8–23.5]	24.8 [21.2–29.0]	22.0 [20.0–24.0]
14: Diseases of the genitourinary system	7.7 [6.3–9.3]	39.9 [35.5–44.6]	16.0 [14.3–17.8]
15: Pregnancy, childbirth and the puerperium	–	15.9 [13.0–19.5]	4.2 [3.4–5.3]
16: Certain conditions originating in the perinatal period	0.3 [0.1–0.5]	0.4 [0.1–1.1]	0.3 [0.2–0.5]
17: Congenital malformations, deformations and chromosomal abnormalities	2.2 [1.5–3.3]	4.7 [3.1–7.0]	2.9 [2.2–3.8]
18: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	27.9 [25.4–30.6]	54.6 [49.8–59.5]	34.9 [32.5–37.3]
19: Injury, poisoning and certain other consequences of external causes	16.6 [14.5–18.9]	13.0 [10.1–16.5]	15.6 [13.9–17.5]
20: External causes of morbidity and mortality	0.3 [0.1–0.9]	0.3 [0.0–2.3]	0.3 [0.1–0.8]
21: Factors influencing health status and contact with health services	12.2 [10.5–14.2]	52.4 [47.6–57.4]	22.7 [20.7–24.8]
22: Codes for special purposes	6.8 [5.5–8.5]	15.0 [12.1–18.6]	8.9 [7.6–10.3]

Top 10 most prescribed drugs with percentages of all prescriptions and one-year prevalences of people receiving at least one prescription per person-year stratified by gender.

The findings for therapeutic subgroups reflect the frequencies of single drugs reported above. Antibacterials for systemic use are ranked second in this analysis, with an estimated 18.3% [16.5–20.3%] of all people treated at least once per year, but do not show up in the single drug analysis because of the multitude of subgroups and single drugs making up this group. The antiinflammatory and antirheumatic products (M01) prescribed here are mostly (88.8%) Ibuprofen (M01AE01) and psychoanaleptics (N06) prescribed here are exclusively antidepressants (N06A). Surprisingly, antimycobacterials (J07) rank 9th in frequency, with 3.1% of all prescriptions and 1.5% [1.0–2.2%] of all people being treated at least once in one year. Table 3 shows the most commonly prescribed drug groups with with percentages of all prescriptions and estimated one-year prevalences of receiving at least one prescription.

Others

Dentists

Our data contained 708 bills for dentist cases, amounting to 39.7 cases (males: 37.3; females: 46.2) per 100 person-years. These cases contained a total of 5063 reported procedure codes (classified through the BEMA [42]). Per case a mean of 7.1 procedure codes was reported (median: 5; Min 0; Max: 61). The most common procedure code was “Ä1: Consultation of a patient, even by telephone”, with 17.2% of all reported codes; 98.1% of all cases contained this code. Second in frequency was “40: Infiltration anaesthesia”, with 8.1% of all codes, and 38.8% of all cases containing this code, and “32: Preparation of a root canal, per canal”, with 7.3% of all

reported codes, and 21.6% of all cases containing this code. Looking into subgroups of the BEMA, the most common subgroups were “101: Diagnostics and consultations”, with 99.0% of all cases containing procedure codes of this subgroup, “109: Anaesthesia”, reported in 55.9% of cases, and “102: X-ray radiography”, reported in 52.5% of all cases. A total of 22.7% of all cases contained only diagnostic procedure codes (Subgroups “101”, “102”). No cases contained prophylactic procedure codes (“103: Prophylactic procedures”). The estimated one-year prevalence of visiting a dentist at least once was 24.0% [22.0–26.1%].

Therapeutic remedies

A total of 188 prescriptions for therapeutic remedies were counted. Per 100 person-years 10.5 prescriptions of this kind were billed. Overall, 86.7% of these concerned physiotherapy, 8% occupational therapy, 3.2% speech therapy, and 2.2% others/unknown. 38.2% of all prescriptions were issued for problems of the spine (“WS”), 35.0% for problems of the extremities (“EX”), and 6.5% for problems with the central nervous system (“ZN”). These prescriptions contained 242 procedure codes according to EBM. The most common chapter was “05: Normal physical therapy, one-on-one”, with 31.9%, “12: Manual therapy”, with 18.2% and “01: Medical massages”, with 9.9% of all prescribed procedure code. A total of 12.8% of the prescribed therapeutic remedies were to be performed in a house call. The estimated one-year prevalence to receive a prescription of this kind at least once was 5.7% [4.6–7.1%].

Medical aid products

A total of 381 prescriptions for medical aid products were billed for the study population. The most frequent chapters were “08: Shoe inlays”, with 16.8% of all

Table 3 Most commonly prescribed drug groups with percentages of all prescriptions and estimated one-year prevalences of receiving at least one prescription

Prescribed drugs		Proportion	One-year prevalence		
Code	Group name	% of all prescriptions	% of men [95%-CI]	% of women [95%-CI]	% of all [95%-CI]
M01	Anti-inflammatory and antirheumatic products	15.9	33.2 [30.5–36.1]	41.1 [36.5–46.0]	35.3 [33.0–37.8]
J01	Antibacterials for systemic use	7.0	14.6 [12.7–16.7]	28.5 [24.5–33.1]	18.3 [16.5–20.3]
N02	Analgesics	6.3	14.0 [12.1–16.1]	25.0 [21.1–29.5]	17.1 [15.3–19.1]
A02	Drugs for acid related disorders	6.3	14.6 [12.6–16.8]	16.2 [13.2–19.8]	14.9 [13.3–16.7]
R05	Cough and cold preparations	5.7	7.2 [6.0–8.7]	14.2 [11.3–17.7]	9.1 [7.9–10.5]
R01	Nasal preparations	5.6	7.2 [5.9–8.9]	16.2 [13.2–19.8]	9.6 [8.3–11.1]
N06	Psychoanaleptics	4.6	3.8 [2.9–5.0]	7.8 [5.6–10.8]	4.9 [3.9–6.1]
N05	Psycholeptics	4.5	2.6 [1.8–3.6]	6.3 [4.3–9.2]	3.6 [2.8–4.7]
J04	Antimycobacterials	3.1	1.6 [1.0–2.5]	1.2 [0.6–2.5]	1.5 [1.0–2.2]
D07	Corticosteroids, dermatological preparations	3.1	7.0 [5.7–8.7]	10.8 [8.1–14.2]	8.1 [6.8–9.5]
J07	Vaccines	2.6	3.8 [2.8–5.2]	8.4 [6.0–11.7]	5.1 [4.1–6.4]

prescriptions, “03: Application aides,” with 15% and “15: Incontinence aides”, with 10.8% of all prescriptions. Per 100 person-years, 21.4 prescriptions were billed (male: 20.9; female: 22.7). The estimate to receive a prescription of a medical aid product at least once in one year was 5.7% [4.6–7.0%].

Miscellaneous

The 517 billing documents regarding regular and emergency inpatient care will be analysed in a separate article.

The 934 remaining bills were caused by emergency and other transport services (n = 729), translator services (n = 28), home care (n = 82), midwifery bills (n = 40), statutory screening for new-borns (n = 30), inpatient rehabilitation (n = 3) and others/unknown (n = 22).

Cost analyses

In 2015, the social services office in Halle (Saale), Germany paid 2,825,106.52 € for medical care for asylum seekers. Per observed person-year, this amounted to 1584.33€ (men: 1178.39€; women: 2700.05€). This amount was lowest for children of 5 to 9 years (779€ per person-year) and highest for asylum seekers above the age of 55 years (3377 €). For this analysis, one extreme outlier was excluded: a premature baby who accounted for costs of more than 280,000€ alone. Figure 3 shows the total health care costs per sector of care. Inpatient

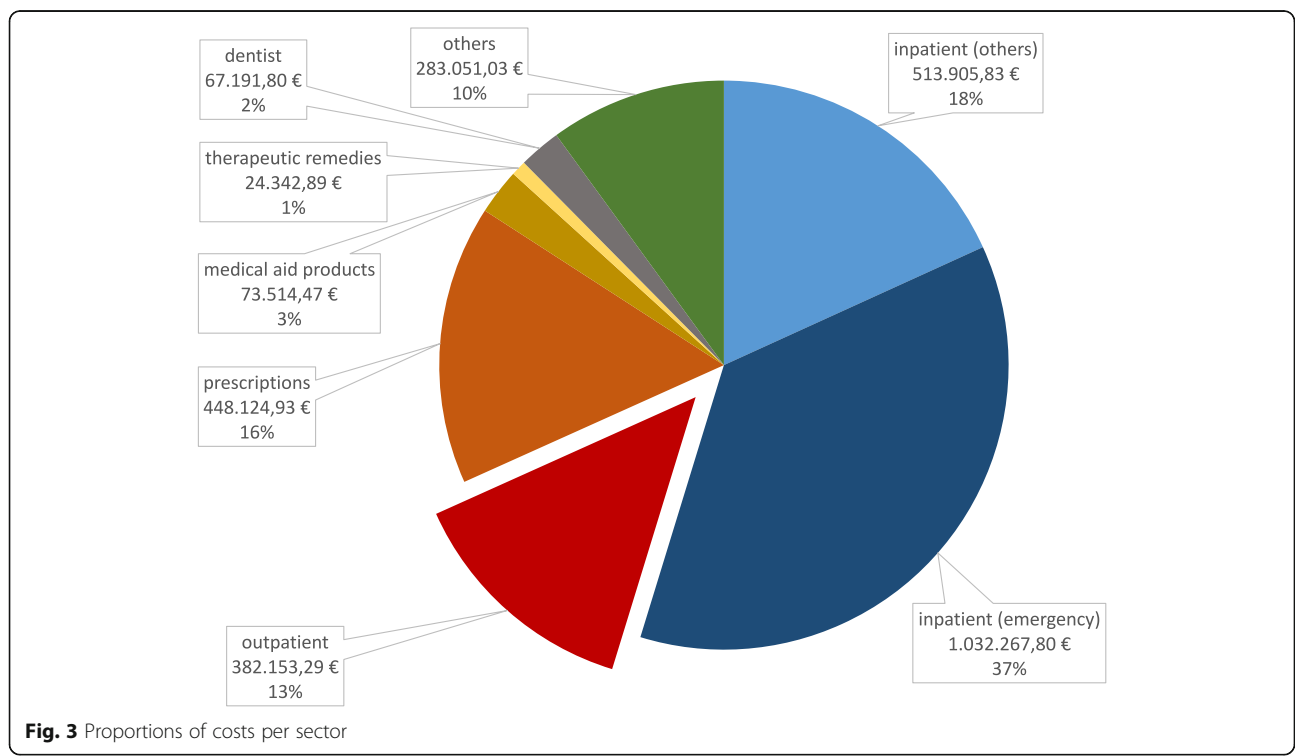
care in total amounted to more than half (54.7%) of all costs, and inpatient care reported as emergency admissions resulted in 37% of all costs. Costs for the subgroup “others” were costs for emergency and other transport (59.9%), rehabilitation (13.9%), home care (13.7%), midwifery costs (4.5%), translator costs (3.8%) and miscellaneous/unknown (4.1%).

Discussion

This study intended to describe health care utilization by asylum seekers and to identify characteristics in their utilization. To describe those in detail is an important first step to better understand how asylum seekers’ particular social and legal situation might affect their access to health care and, ultimately, their health. We identified four key characteristics that warrant further discussion: a low outpatient care utilization, the gender gap in most diagnoses and services, a large share of painkillers among all prescribed drugs and the total health care costs.

Low outpatient care utilization

Public health researchers have long highlighted the high importance of early primary and outpatient care in limiting the later burden of disease in general [53] and for asylum seekers and other vulnerable groups in particular [22, 54]. Accordingly, it has been shown that a strong focus on primary health care for asylum seekers reduces



health care costs to the public [55]. Access to health care for asylum seekers is complicated by structural factors such as language barriers or limited knowledge about the health system. In addition, with the exclusion of asylum seekers from the statutory health insurance through the ASBA and its various translations into practice, German health care policy has created artificial barriers in the access to health care for asylum seekers [10, 19, 37]. We suspect effects of these barriers in the utilization of health care services by our study population: When comparing our cohort of asylum seekers to the regularly insured German population [51], we found similar patterns in age and gender distribution contrasting consistently lower numbers of utilization of outpatient care across all age and gender groups. While among the regularly insured German population, more than 90% of all people visit an outpatient physician at least once in one year [51], at 67.5%, this prevalence was comparably low in our population. This might be assumed to show the “healthy migrant effect” [56], but a closer look reveals a more exact picture.

In detail, utilization of outpatient specialist care was lower than for the regularly insured population in every specialty [51], except for contacts to emergency departments [57]. Researchers have found high utilization of emergency care to be a result of inefficient and delayed ambulatory care and barriers in access to regular primary care [54, 58]. In emergency departments, as opposed to other outpatient offices, organizational barriers are low, as asylum seekers do not need health care vouchers there to receive treatment [59]. Limited knowledge about the structure of the German health system, with its separate inpatient and outpatient sectors and family doctors as designated first contact points for patients, also might lead asylum seekers to seek help in emergency departments first [58, 60, 61].

Despite many researchers reporting a high need for psychological care among refugees [11, 62–64], the prevalences of psychological diagnoses in our sample were low, and the proportion of people having contact with psychotherapists was extremely low. This might be explained by barriers in accessing psychological services and problems with reimbursement of psychotherapy by social security offices [62, 65]. In another publication, we expand on this topic by contrasting utilization data with data on actual health care needs in the same population to quantify this mismatch [66].

Gender gap

With almost all of the measurements of utilization that we looked at, we found a large gender gap, with women having higher rates of outpatient cases and proportionally more women having contact with physicians, being diagnosed more often and receiving more prescriptions.

This can only in part be explained through pregnancies and birth, as it holds true for almost all diagnosis groups and rates of health care services. These findings replicate other reports [21, 67, 68]. This might point towards lower access barriers for migrant women or higher health care needs, but we found no published research regarding this topic. More research is needed here to identify gender-specific modes of access and patterns of health care utilization among this population.

Medication

Among the prescribed drugs for our study population, we found a surprisingly large percentage of common pain killers together making up more than 20% of all drug prescriptions made out for our study population. More than one-third of our population received at least one prescription for Ibuprofen in one year, compared to approximately one-fifth of the regularly insured population [69]. Similar results have been reported by Kahl and Frewer [70] from a sample in a reception centre in Bavaria. As they have, we can only speculate about reasons for this anomaly. Diagnoses of disorders of the musculoskeletal system and of symptoms of nonspecific pain were prevalent.

Nonspecific pain is a symptom often reported among asylum seekers [10, 63]. This might result from pain being a frequent symptom of psychological and psychosomatic conditions [71]. Previous studies have shown a high unmet need of treatment of such conditions and a tendency among mentally ill asylum seekers to report with somatic symptoms [72]. Another explanation might lie in the wording of the ASBA, stating in its first paragraph that asylum seekers are entitled to treatment for “acute and painful conditions” [17], which might lead physicians towards treating symptomatically with pain medication, especially when in uncertainty about actual entitlement regulations for their patients [24] or when unwilling or unable to engage for their patients to facilitate equitable treatment and to overcome barriers in access to adequate health care [26, 37]. Researchers working on asylum seekers’ perceptions of the health care system have described frequent pain killer prescriptions as a symbol for “*the lack of interest of and the rejection by the health care system*” [73], as they found pain killer prescription being a common trait among failed doctor-patient interactions with asylum seekers [37].

Cost analyses

With regard to cost analyses, our findings for total cost per person-year are similar to findings by other researchers [18, 22, 65] in being much lower than for the regularly insured population in Germany, where the yearly total health expenditures per person in 2015 was reported to be 3019€ [74]. Bozorgmehr et al. [22]

reported the total health care cost per person-year for asylum seekers in the German mean to be 1606€ in 2013. Bauhoff et al. [65] looked at a similar data source of a similar cohort of asylum seekers in 2016 who had access not through health care vouchers but who were handed an Electronic Health Insurance Card (EHIC), considerably facilitating access to health care [2]. With 1534 €, the total annual health care costs per person-year for our cohort were almost 20% lower than for Bauhoff et al.'s cohort of asylum seekers, at 1884€ [65]. Herein, the biggest relative differences are found in outpatient care and dentist costs. These are the sectors where organizational barriers in access are highest due to the local implementation of the ASBA and that were less cost-intensive in our cohort.

While this seems to support the rationale in restricting access to health care for asylum seekers to minimize costs to be carried by the German state [75], we are wary of this interpretation for reasons of ethics and economics. First, saving money by artificially creating an underprovision seems to be unethical to us and many others. Second, many researchers have argued that inadequate provision of primary and preventative care before [8], during [6] and after the flight [2, 10, 14, 59] would cause a shift in health services to later, more severe stages of disease and thereby to emergency care and the inpatient sector, ultimately making health care provision to this population more costly in the long term [2, 19, 22, 59]. We believe our data show signs of this shift in the analysis of costs per sector of care: more than half of all costs for our study population were generated in the inpatient sector compared to figures for the regularly insured, ranging from 25 to 39% [65, 74]. We also see a high share of costs generated through emergency hospitalization. This is in line with former research, showing high prevalences of hospitalization [67, 76] and high costs of inpatient health-care [54, 65] among asylum seekers. To reverse this shift back to the cost-efficient arena of primary and preventative care, this calls for initiatives to provide timely and adequate care both in the receiving country and along the migration routes to reduce the morbidity and health care costs in the long term [22, 28]. Further research is needed to investigate the causes and extent of preventable hospitalization among asylum seekers through restricted access to health care. We intend to give a more in-depth analysis of the data concerning regular and emergency inpatient care in a future publication.

Strengths and limitations

Asylum seekers' access to health care has been a controversial topic for many years. Nevertheless, scientific studies on the health-related effects of restricting access to health care have been scarce until now. With this

article, we want to provide a first insight into health care utilization under circumstances of restricted access to health care structured through the ASBA and the provision of health vouchers to define a starting point for further analyses. As a major strength of our study, we consider that by using claims data from a social services office, we chose an approach that has thus far not been employed to generate data on asylum seekers' health. With this population-based approach, we can show frequencies, prevalences and other key characteristics of the utilization of health care on an individual level, unrestrained by selection or recall bias. Our findings point to certain unmet health care needs among asylum seekers and can provide a baseline, to which similar data from different districts with different structural characteristics or from different time spans or data taken from other populations can be compared to evaluate measures to improve health outcomes among this vulnerable population.

However, the presented data alone do not allow for inferences about reasons for anomalies or characteristic patterns in health care utilization. The utilization of health care services is not congruent with the actual health care needs [72] and differs under differently structured modes of access [19]. Therefore, our data have to be interpreted against the backdrop of the local policies and conditions. In another publication, we contrast utilization data with data on actual health care needs, highlighting this difference between health care needs and utilization [66].

Our study population matched the general demographics of people coming to Germany as asylum seekers during that time in age and gender distribution, with young and male asylum seekers dominating the sample [77]. With regard to origin countries, similar to the national statistics, Syrian and Afghan nationals also dominated our study population. However, all nationalities from the Balkan states (Albania, Kosovo, Serbia) were largely missing from our sample. These countries are considered "safe origin countries" by the German government, and applicants from these countries are usually not distributed to the districts but have to stay in the reception centres until their deportation. In turn, West African nationalities (Somalia, Benin, Guinea-Bissau, Niger) were overrepresented. Applicants from these countries had the longest durations of entitlement, i.e., asylum processes, and may thus be overrepresented. Asylum seekers are distributed into the regions in Germany based on the "Königsteiner Schlüssel", an allocation formula that calculates the number of asylum seekers to be taken in by each region according to its tax yield and its population count. While we know from informal discussions that the distribution of asylum seekers to the different federal states is additionally

influenced by their nationality (with less-common nationalities being clustered in some federal states), we were not able to officially receive confirmation of these processes from the authorities in charge. Nevertheless, we do not assume that there is a strong association between nationality and health status and therefore consider the potential for bias arising from this problem to be rather small. The gender and age distribution, with a focus on male and younger participants, limits comparability to the population of the regularly insured in Germany.

Furthermore, interpretation of secondary data is limited by its origin [78]. Claims data are generated not for the purpose of research, but for billing of medical services, and therefore might be biased through the financial interest of service providers. Diagnosis codes on provider bills have to be noted to legitimate billed procedures and services; thus, diagnosis numbers may overestimate the true prevalence [51, 52]. However, our data on prescriptions only contains those documents that were turned in to pharmacies, but not those that were prescribed but never turned in. These data therefore only describe the drugs that were actually handed out to the asylum seekers in pharmacies. The data also do not contain information on prescription-free drugs and drugs that were given out as part of a hospital stay; thus, our figures may misrepresent true drug use to some extent [52].

Because of the structure of the data, we could not calculate certain characteristics that we had deemed important. We could not calculate the exact number of contacts between asylum seekers and physicians, as the billed cases can contain a number of contacts between care provider and patient. When looking at diagnoses we also could not differentiate between ongoing cases of one illness and multiple recurrences of the same disease so as to show incidences. This is a common problem also faced by other researchers using similar claims data [52, 69]. We drew on their work and also calculated one-year prevalences of diagnoses and utilization of different services to be able to compare our findings and to not underestimate the true figures.

Conclusion

Empirical data on health care utilization by asylum seekers is essential to improve provision processes and outcomes. As of yet, German policy decisions on the health care of asylum seekers have not followed medical reasoning or empiric evidence and, thus, have had effects adverse to asylum seekers' health. Germany has both accepted access to health care [79] as a human right and its implementation as its' duty under EU law [80]. This means providing accessible, acceptable and high-quality health care to all those who need it is not only a moral obligation, but a legal one. As health professionals, we

want to support the process towards health equity by contributing to a knowledge base about asylum seekers' health care utilization. With this analysis of claims data held by the municipal social services office, we presented an exploration of a novel data source for monitoring utilization of health care by asylum seekers. With four characteristics in patterns of health care utilization, we identified fields of interest for further research: low outpatient care utilization, a substantial gender gap in utilization of almost all services and diagnosis groups, high shares of pain medication in drug prescriptions and a high share of costs being generated in the inpatient sector. We created a baseline, to which data from different districts of populations can be compared to. Further research regarding utilization under differently structured modes of access to health care and individual perceptions of the health system and barriers, as well as actual health care needs of asylum seekers, is needed to identify reasons for these characteristics and to deduce evidence-based measures to improve health care provision to asylum seekers.

Supplementary information

Supplementary information accompanies this paper at <https://doi.org/10.1186/s12913-020-05811-4>.

Additional file 1. Additional information on the asylum process in Germany.

Additional file 2. Exemplary Kaplan-Meier analysis illustrating the method used in obtaining one-year prevalences.

Additional file 3. Additional data on prevalences by single diagnoses and diagnosis groups.

Additional file 4. Additional data on the Top 10 most prescribed single drugs.

Abbreviations

CI: Confidence interval; ASBA: Asylum seekers benefits act ("*AsylbLG*", "*Asylbewerberleistungsgesetz*"); EBM: Uniform valuation scale for ambulatory physicians ("*Einheitlicher Bewertungsmaßstab*"); BEMA: Valuation scale of dentistry services ("*Bewertungsmaßstab zahnärztlicher Leistungen*"); ICD-10: International Classification of Diseases and Related Health Problems, 10th revision; PZN: Central pharmaceutical number ("*Pharmazentralnummer*"); ATC: Anatomical Therapeutic Chemical Classification System; PY: Person-year; HIV: Humane immunodeficiency virus; EHC: Electronic health insurance card; ZAS: Central reception centre for asylum seekers ("*Zentrale Anlaufstelle für Asylbewerber*")

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Authors' contributions

AN and AF2 conceived the concept and design of the study. AF2, DT and AW were responsible for realization of data access. AN, AF2, DT, AW made substantial contributions to the conception and design of the study. AN collected, edited and analysed the claims data and drafted this article. AN,

AF1, DT, AW, AF2 were involved in critical revision for important intellectual content. AN, AF1, DT, AW, AF2 read and approved the final manuscript.

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Availability of data and materials

The data that support the findings of this study were obtained from the social services office, City of Halle (Saale), Germany (address: Fachbereich Soziales, Südpromenade 30, 06128 Halle (Saale), Germany), but restrictions apply to the availability of these data, which were used under license for the current study and therefore are not publicly available. Data are, however, available from the authors upon reasonable request and with written permission of the social services office, City of Halle (Saale), Germany.

Ethics approval and consent to participate

As this study only uses anonymized secondary data, according to national guidelines, no clearance by the ethics committee was necessary [50].

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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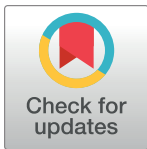
RESEARCH ARTICLE

Serious shortcomings in assessment and treatment of asylum seekers' mental health needs

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Abstract

Background

The prevalence of psychological complaints is known to be very high in populations of asylum seekers. Despite this, data on the health care system's ability to adequately meet these high-risk populations' mental health needs are scarce. This article investigates how well the German outpatient health care system is able to detect and adequately treat them.

Methods

To this end, we combined data from a cross-sectional survey with billing data from the local social welfare office from the year 2015. Using descriptive statistics, the data of the cross-sectional study are used to quantify the psychological health care *needs* of asylum seekers while the secondary data analysis indicates the actual access to and extent of psychological *treatment*.

Results

In the cross-sectional study, 54% of patients were screened positive for symptoms of depression, 41% for symptoms of anxiety disorder and 18% for symptoms of Posttraumatic Stress Disorder. In total, 59% were screened positive for at least one of these three disorders. However, when contrasting these screening-based prevalences with the prevalences based on data from the health care system, a mismatch becomes apparent: According to the social welfare office's billing data, only 2.6% of asylum seekers received the diagnosis of depression, 1.4% were diagnosed with anxiety disorder and 2.9% with Posttraumatic Stress Disorder (PTSD). In combination, 4.9% were diagnosed with at least one of these three disorders. Overall, less than one tenth of asylum seekers with symptoms of depression, anxiety or PTSD received the corresponding diagnosis by the health care system. Among those who were diagnosed, about 45% received no treatment at all, while 38% were treated with drugs alone. Only 1% of all patients received psychotherapy.

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Conclusions

Psychological complaints are very common among asylum seekers, yet only a small proportion of this population receives the corresponding diagnoses and treatment. While various factors can contribute to these shortcomings, there is an urgent need to systematically address this deficit and introduce measures to improve mental health care for this high-risk population.

Introduction

A vast number of studies show that psychological problems are highly prevalent in refugee populations all over the world [1–3] and also in Germany [4,5] (for an explanation of our terminology see Supplement 1). The reasons for this are manifold and well established: While many asylum seekers are victim to potentially traumatizing experiences in their countries of origin and suffer from adversity that made them leave their home in the first place [6,7], many experience further violence, abuse and insecurity during their flight [8,9]. Migration studies speak of pre- and peri-migratory stressors here [10,11].

However even after asylum seekers' arrival in Europe, their psychosocial situation remains burdensome. These post-migratory stressors include uncertainty concerning the outcome of asylum claims [12–14], poor living conditions in shelters with no privacy and often substandard housing [14–16], social marginalization and legally restricted possibilities for family reunion [11], economic hardships due to legal restrictions of access to the labor market and social benefits [17], and the experience of racism and violence [15,18,19].

Considering these facts, facilitating asylum seekers' access to adequate psychological care seems a common sense measure. Accordingly, attempts to facilitate access to care have been incorporated into international law: In 2011 the European Parliament urged its member states to “focus on the needs of vulnerable groups, including disadvantaged migrant groups” [20] while the EU's Directive 2013/33/EU explicitly specifies for migrants with chronic mental conditions that “Member States shall provide necessary medical or other assistance to applicants who have special reception needs, including appropriate mental health care where needed” [21]. The EU Directive 2013/33/EU was signed by the German government in 2013 and became national law in July 2015.

Subsequently, institutions such as the German National Academy of Sciences [22], the German Association of Psychosocial Centres for Refugees and Victims of Torture [23], and national guidelines [24] outlined in great detail means to achieve these aims. Still, scientific studies and reports of civil society alike regularly illustrate that asylum seekers' access to psychological care continues to be alarmingly underdeveloped. Many patients are only able to find treatment outside the regular health care sector, facilitated by NGOs and other members of civil society [25].

The extent of the presumed health care gap for psychological treatment is so far unknown. Therefore, the aim of this paper is to investigate the extent of this presumed gap. In doing so, we found substantial deficits both in diagnostics and guideline-adherent therapy of psychological complaints.

Materials and methods

Study population

After their arrival in Germany, asylum seekers are assigned to a federal state and its reception center, where they go through the first stages of their asylum procedure. Depending on their country of origin, they stay at the reception center until the asylum process is completed (this is usually the case for people from a country with a low probability of asylum approval), or they are transferred to a municipal shelter where they complete the remainder of the process [26]. During this time, they have a particular legal status: They are not allowed to work, their access to social benefits is very limited and often restricted to vouchers and/or benefits in kind, and they have no access to the statutory health insurance [13,27]. Instead, their medical needs ought to be covered by §§ 4 and 6 of the Asylum Seekers' Benefits Act (ASBA), which grants a high degree of discretionary power to the local social welfare office (*Sozialamt*) [28], the government agency responsible for the payment of welfare subsidies and for the provision for asylum seekers. As a result, in most municipalities the extent of medical services covered by the social welfare office is considerably smaller than for regularly insured patients [27]. After 15 months in Germany, asylum seekers usually become entitled to statutory health insurance, irrespective of their legal status. As of now, this period has been extended to 18 months.

The asylum seekers included in this study have already been transferred to the municipality's responsibility and mostly live in shelters. All of them are receiving benefits according to the ASBA and are still waiting for the approval of their asylum claim.

Study design

This analysis is based on two sources of data: a secondary data analysis of the local social welfare office's billing data concerning all asylum seekers registered in 2015 in the city of Halle (Saale), Germany, and a cross-sectional study involving a subpopulation of those asylum seekers. The data of the cross-sectional study are used to quantify the psychological health care *needs* of asylum seekers, while the secondary data analysis indicates access to and extent of psychological *treatment*.

We restricted the analysis of treatment to the outpatient sector, since there is a consensus that patients with the conditions in question are to be treated as outpatients and that inpatient treatment in these cases signals shortcomings in the outpatient sector [29].

Cross-sectional survey

In August 2015, a sample of 214 respondents was randomly recruited out of 560 eligible asylum seekers in Halle (Saale), Germany. Participants were approached in their shelters by going from door to door. A week before the survey all eligible asylum seekers (or their parents or guardians in the case of minors) had already been informed about the study by a social worker who handed them a document explaining the study aims and matters of data protection and voluntariness in the asylum seekers' respective mother tongue. On the day of the survey, these issues were once again explained in the respondents' mother tongue by native-language study assistants. Then, they were asked to verbally give informed consent on their participation and fill in the questionnaire. (For participants under the age of 18 years (the age of consent in Germany), a parent or other guardian had to agree to the study participation as well.) Except for two people, who refused to participate due to time constraints, all approached eligible asylum seekers agreed to take part in the survey. To be included in the study, participants had to be at least 16 years of age and speak Arabic, Farsi, French, Hindi, or English. Participants anonymously filled in a questionnaire in their mother tongue that contained two psychometric

screening tools measuring symptoms of depression and anxiety (Hopkins-Symptom-Checklist 25, HSCL-25) [30], and symptoms of PTSD (fourth part of Harvard Trauma Questionnaire, HTQ) [31]. Both instruments have been shown to perform well in cross-cultural settings in earlier studies [32–34]. The HSCL-25 was analyzed separately for symptoms of depression and symptoms anxiety disorder, using a cut-off value of >1.75 for each score [35]. For the HTQ, values >2.5 were considered indicative of PTSD [36].

More information on methodic details can be found in [5].

Billing data

Billing data was gathered from the local social welfare office and digitalized. Hereby information on the billing physicians and their specialty, as well as diagnoses (as ICD-code), treatment procedures (as EBM-codes), prescribed medicines (as ATC-codes) and the costs for each were documented. The billing data covered the entire population of registered asylum seekers in Halle (Saale) during the year 2015 and also *included* those individuals sampled in the cross-sectional survey. To ensure comparability of the data sets, only asylum seekers of at least 16 years of age were included in the analysis of the billing data.

Since the screening tools employed in the cross-sectional study measure symptoms that might also occur in disorders other than depression, anxiety disorder and PTSD, we grouped the ICD-codes that could have been assigned by physicians according to the *phenomenology* of the diseases by taking into account if the respective diagnosis makes it likely that a patient would at some point in his or her history be screened positive with the tools we employed: In the following, the physicians' diagnosis of "depression" subsumes the ICD-codes F25.1, F31.3–6, F32, F33, F34, F38, F39, F92.0, "anxiety disorder" includes F40 and F41, and "PTSD" corresponds to F43.

The billing physician's specialty was documented using the physician's ID assigned by the [Association of Statutory Health Insurance Physicians](#) which includes information on a physician's specialty. Specialties were then grouped into broader categories: Different types of family doctors were included in one group and all specialties concerned with psychological complaints were categorized as "psychiatric specialist". The latter group includes the specialties "neurology and psychiatry", "psychiatry and psychotherapy", "forensic psychiatry", "psychosomatic medicine and psychotherapy", "medical psychotherapy", "psychological psychotherapy" and "pediatric psychotherapy".

In classifying the therapies offered to patients with diagnosed depression, anxiety disorder or PTSD, we distinguished between psychotherapy and verbal intervention (*Gesprächsintervention*), where verbal intervention refers to a consultation of at least 15 minutes with a physician who underwent training for mental basic care. While psychotherapy is offered only by the above-mentioned psychiatric specialists, verbal interventions can be conducted by any medical specialty.

Prescribed medicines were categorized according to their ATC-code. The following groups of codes on the four-digit level of the ATC-classification are potentially indicated for treating symptoms of depression, anxiety disorder or PTSD: N05AN, N05B, N05C, N06A, N06C. Medicines belonging to these groups are hereinafter referred to as "specific drugs".

Estimating the extent of the health care gap

We use the findings from the cross-sectional study to calculate the proportion of asylum seekers with psychological symptom-scores above the cut-off value. Since studies have shown that among the regularly insured population only about 50% of positively screened patients are later diagnosed with depression by their family doctor [37], it is likely that not all patients

screened positive would need therapy. Nevertheless, all of them show distinct symptoms that warrant further investigation. Therefore, we interpret this proportion as the percentage of asylum seekers that would need to be examined by a physician *at least once* in order to confirm or refute the results found in the screening.

We then compared this proportion derived from the cross-sectional study with the combined prevalence of diagnoses, refuted diagnoses, and diagnostic and therapeutic procedures related to depression, anxiety disorder or PTSD as gathered from the social welfare office's billing data. From this comparison we estimate how well the health care system is able to *detect* asylum seekers with psychological complaints.

In a second step, we investigated the kind of treatment that patients who were diagnosed with one of the three conditions received within the outpatient health care system. This serves to assess how well the health care system is able to *treat* asylum seekers with psychological disorders.

Statistical analysis

Descriptive statistics are reported as means and absolute and relative frequencies with their corresponding 95% confidence intervals.

Ethics

The cross-sectional part of the article underwent ethics clearance and was approved by the institutional review board of the Faculty of Medicine at Martin-Luther-University Halle-Wittenberg, Germany (Nr.: 2015–74).

The secondary data analysis performed as part of this study uses administrative data which fulfils all necessary requirements of the Federal data protection act of the Federal Republic of Germany. As the data is fully anonymous and did not involve any experiments, according to national guidelines (AGENS (2014): Gute Praxis Sekundärdatenanalyse (GPS): Leitlinien und Empfehlungen) no ethics clearance for this part of the investigation was necessary.

Results

A total of 4 107 people were registered as asylum seekers at the social welfare office in Halle (Saale), Germany in the year 2015, of whom 3 388 (83%) were above the age of 15 years. Those adult asylum seekers effected 12 944 billing documents in 2015. Median time of observation within the year 2015 was 113 days (min = 1, max = 365), which reflects that many asylum seekers went in and out of entitlement during the one-year observation period.

The comparison of the population sampled for the cross-sectional survey to the entire cohort of asylum seekers shows a slight over-representation of male and Syrian asylum seekers in the cross-sectional survey (due to language being a selection-criterion for the survey) as well as a higher proportion of married respondents. More details of the demographic properties of the study populations are shown in [Table 1](#).

Detection deficit

In the cross-sectional study, 54% of patients (n = 116; 95%-CI: 47.5%–60.9%) were screened positive for symptoms of depression, 41% (n = 87; 95%-CI: 34.1%–47.2%) for symptoms of anxiety disorder and 18% (n = 38; 95%-CI: 12.6%–22.9%) for symptoms of PTSD. Co-morbidity was high, so that in total 59% of all respondents (n = 127; 95%-CI: 52.8%–65.9%) showed symptoms of at least one of the three disorders.

Table 1. Demographic characteristics of the cross-sectional sample and the whole cohort of asylum seekers in 2015 in Halle (Saale), Germany.

		cross-sectional sample N = 214		whole population > 15yrs N = 4 107	
		n	%	n	%
Age [years]	16–24	60	28	1228	36.3
	25–34	100	46.7	1314	38.8
	35–44	27	12.6	546	16.1
	≥45	14	6.5	300	8.9
	missing	13	6.1	.	.
	average:	29.16	range: 16–65	29.9	range: 16–89
Gender	male	182	85	2625	77.5
	female	24	11.2	763	22.5
	missing	8	3.7	.	.
Marital status	married	92	43.0	825	24.4
	single	115	53.7	2366	69.8
	divorced	2	0.9	24	0.7
	widowed	2	0.9	9	0.3
	unknown	3	1.4	162	4.8
Country of origin	Syria	145	67.8	1581	46.7
	Afghanistan	28	13.1	269	7.9
	Benin	11	5.1	157	4.6
	Iran	10	4.7	161	4.8
	India	5	2.3	103	3.0
	Other	15	7.0	1116	32.9

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When contrasting these estimates with the percentage of people diagnosed with psychological complaints within the health care system, a gap becomes apparent: Within the year 2015, only 2.6% (n = 105; 95%-CI: 2.1%–3.1%) of asylum seekers received a diagnosis of depression, of which most diagnoses (85%) were major depression (ICD-code F32), 9% were recurrent major depression (ICD-code F32) and 3% were schizoaffective disorders of the depressive type (F25.1).

1.4% (n = 58; 95%-CI: 1.1%–1.8%) of asylum seekers were diagnosed with anxiety disorder and 2.9% (n = 121; 95%-CI: 2.5%–3.5%) with PTSD. 4.9% (n = 201; 95%-CI: 4.3%–5.6%) were diagnosed with having at least one of the three disorders. Fig 1 illustrates the magnitude of the detection deficit.

Psychological care gap

A) Physicians' specialties. Of the 201 patients diagnosed with at least one of the three disorders, 39% (n = 79) were treated for the disease by their family doctor alone, while 43% (n = 87) received care from a psychiatric specialist (alone or in combination with the family doctor and/or other specialties), and 11.4% (n = 23) from specialties other than family medicine and psychiatry. The remaining 6% (n = 12) were treated either in a hospital's emergency department, or by a family doctor and another specialty in parallel.

B) Drug therapy. 85.5% (n = 171) of all patients with at least one psychological diagnosis received medication, while 48% (n = 96) received drugs specific for the respective psychological complaints. Among these, antidepressants were the most common group (83% of all prescribed *specific* drugs), followed by anxiolytic substances (10%) and hypnotics and sedatives

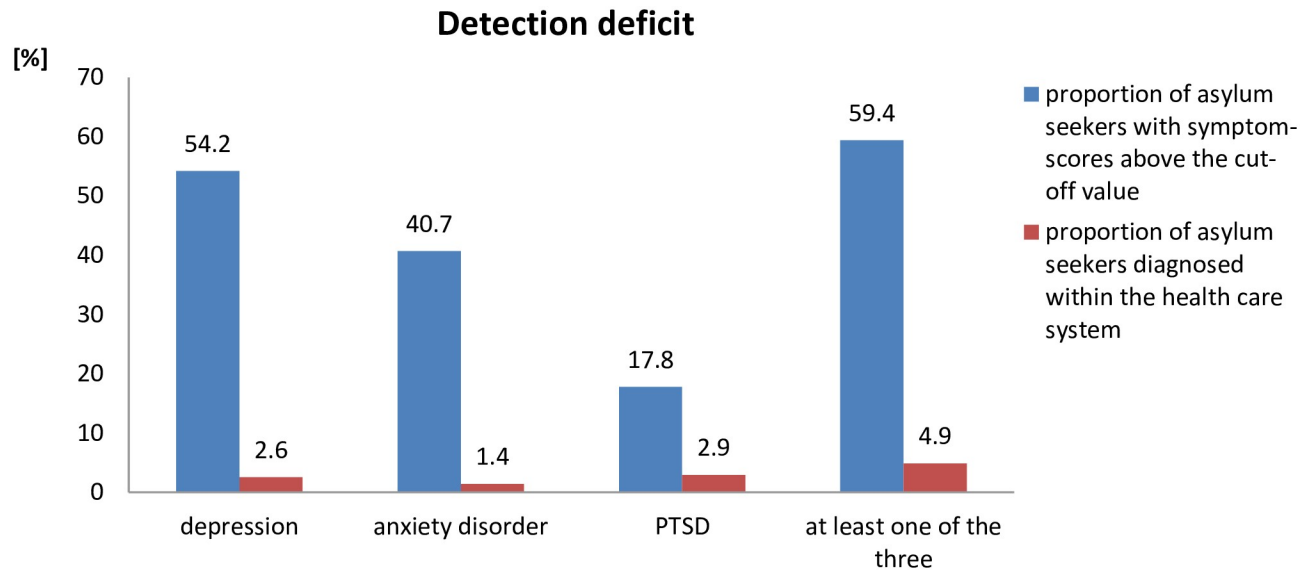


Fig 1. Comparison of the proportions of asylum seekers with psychological complaints in the cross-sectional study and in the outpatient health care system. The difference between the bars signals a detection deficit.

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(7%). 80% of the specific drugs were prescribed by a psychiatric specialist, 18% by a family doctor and 2% by other specialties.

C) Psychotherapy. Only two patients received psychotherapy (1% of all patients with a psychiatric diagnosis). A larger number of patients (n = 33, 16.4%) was treated with verbal intervention. These 33 patients received a total of 56 sessions of verbal intervention. 71% of the verbal interventions were performed by family doctors, 5% by psychiatric specialists and 23% by other specialties.

D) Treatment options summary. Drug therapy and psychotherapy are considered the two main pillars of psychological treatment. In our study population, 38% (n = 76) of patients were treated using drug therapy alone, while 6.5% (n = 13) received a verbal intervention. 9.5% (n = 19) were treated with a combination of drug therapy and verbal intervention. 45% (n = 91) received no therapy for their psychological complaints at all.

When stratifying the treatment options according to diagnosis, the percentage of untreated patients varied: Among asylum seekers diagnosed with depression, 28% received no treatment, while 38% and 47% respectively of patients with anxiety disorder and PTSD went without treatment. More details are shown in [Table 2](#).

Table 2. Treatment combinations stratified according to disease.

	Depression		Anxiety		PTSD		At least one diagnosis	
	n	%	n	%	n	%	n	%
Drug therapy only	53	50	23	41.8	47	38.8	76	37.8
Verbal intervention only	8	7.7	5	9.1	3	2.5	13	6.5
Psychotherapy only	0	0	0	0	1	0.8	1	0.5
Drug Therapy + Psychotherapy	0	0	0	0	0	0	0	0
Drug therapy + verbal intervention	14	13.5	5	9.1	12	9.9	19	9.3
Drug therapy + verbal intervention + psychotherapy	1	1.0	1	1.8	1	0.8	1	0.5
No specific treatment at all	29	27.9	21	38.2	57	47.1	91	45.3

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Discussion

This article presents two main findings: First, based on screening tests, a much larger proportion of asylum seekers experiences symptoms of various mental health disorders than are formally diagnosed. Second, among those diagnosed within the health care system, many receive no treatment at all and only very few patients receive psychotherapy. Thus, we conclude a substantial deficit in addressing this population's mental health needs.

As outlined in the introduction, the high prevalence of psychological conditions among asylum seekers is well established in the literature [2–5,38] and estimated to be about five times the prevalence of the general population [39,40]. This article adds to the current state of knowledge by showing that the German health care system so far fails to adequately address this issue.

At first glance, one could argue that outpatient treatment for psychological complaints is generally problematic in Germany [41]. However, when comparing our findings to findings evaluating the situation for regularly insured patients with psychological complaints, it becomes apparent that the situation of asylum seekers is *exceptionally* dire: Whereas in regularly insured patients between 40% and 75% of e.g. patients with symptoms of depression receive the corresponding diagnosis in the health care system [40,42,43], in our study population this proportion was only around 5%. This might be explained by language barriers [4,10,44], socioculturally shaped presentations of symptoms unfamiliar to many physicians [2,4,45], or problems related to patients' irregular health insurance status [46]. Also, asylum seekers' problems with navigating through the health care system have been described as responsible for the observed low proportion of patients receiving mental health diagnoses [47].

Considering the high prevalence of psychological complaints in asylum seekers, the introduction of screening measures seems advisable. Indeed, the national guideline for depression recommends screening of high-risk populations [48], and the EU Directive 2013/33/EU explicitly demands the implementation of screening measures to identify “applicants with special reception needs” [21]. Our data strongly supports these demands and highlights the need for systematic implementation of procedures to early identify asylum seekers with psychological complaints and facilitate their referral to adequate care.

Yet not only the deficit in the identification of symptomatic asylum seekers is problematic; the treatment they receive once diagnosed seems to be insufficient as well. While virtually all regularly insured patients in Germany who suffer e.g. with depression receive either drug therapy, verbal intervention or both [40,49], in our cohort 28% of all patients with this diagnosis received no therapy at all. Furthermore, the comparably high proportion of depressed patients treated by drug therapy alone seems to be indicative of a deviation from medical guidelines, which discourage the use of antidepressant drugs as a first-line treatment for mild depression [48].

A somewhat surprising finding is the high proportion of patients treated by psychiatric specialists in contrast with the very low number of psychotherapies: Apparently, many psychiatric specialists abstain from offering guideline-adherent therapy and favor drug therapy over psychotherapy. While this might reflect a general tendency in the German health care system, where psychiatrists often focus on drug therapy and psychotherapies are delegated to other psychiatric specialists, other factors might be relevant as well. We propose that other reasons might be seen in difficulties with identifying the correct indication when symptom presentation differs from what is common in the physicians' culture [44,50]. Another factor might be that interpreters are not readily available within the German health care system, and even if they are available cost absorption for interpreters is difficult and time-consuming [10,51–53]. Additionally, many psychiatric specialists might not be familiar with the treatment of

complaints more common among asylum seekers, e.g. Posttraumatic Stress Disorder [8,54]. Also, the risk that the social welfare office might refuse to reimburse their costs might influence specialists and family doctors alike in the choice of treatment they offer to asylum seekers: It has been reported that up to 35% of applications for cost reimbursement for psychotherapy for asylum seekers are rejected [55], compared to only 1–3% in regularly insured patients [12].

In summary, asylum seekers' mental health seems to be caught in a vicious trap: First, many asylum seekers are exposed to multiple stressors and violations before, during and after their flight. Second, irrespective of their high risk for mental illness, medical guidelines and legal obligations, asylum seekers are rarely screened for mental problems and as a result often do not receive the health care system's due attention. Third, even if they are diagnosed with mental health problems, they often receive no treatment at all and if they receive treatment it is often substandard compared to regularly insured patients.

All three dimensions are man-made: Dangerous flight routes to Germany are largely a result of the EU's border policy [56,57] and many of the post-migratory stressors directly result from political decisions on the federal, state or district level [58], while the administrative barriers in asylum seekers' mental health care were explicitly intended when the ASBA was passed in 1993 [58,59].

Therefore, we think it justified to think of asylum seekers' exposure to substandard mental health care as a form of structural violence. First introduced by sociologist Johan Galtung [60], this term describes how "historically given (and often economically driven) processes and forces [...] conspire" [61] to cluster risk factors, morbidity and early death in some populations and not in others [62]. It highlights how social, political, economic and infrastructural factors can lead to bodily and psychological harm for particular groups of people, and further emphasizes that despite the efforts of individual agents to provide high-standard care, structural forces of exclusion are often difficult to overcome and thus should be the subject of concerted effort to change. Therefore, the pattern of undersupply that we show in our paper is more than a mere reflection of individual suffering—it highlights that there is a human rights issue at hand and that our society so far fails to live up to its promise of the "highest attainable standard of health" for all [63].

Limitations

There are a number of limitations that necessitate a cautious interpretation of our findings: First of all, our estimation of the proportions in the cross-sectional sample is based on screening tools, which are reported to have a specificity of between 73% and 93% [34,64] and might therefore overestimate the prevalence of asylum seekers with mental illness. Also, studies have shown that—among regularly insured patients—for instance, only about 50% of patients screened positively for depression are later found to be depressed by family doctors [37]. Various reasons for this finding are discussed in the literature, among them the possible underdiagnosis of psychological disorders by family doctors due to their recourse to information not included in diagnostic manuals [43,65]. When interpreting our findings, it is therefore important to keep the difference between screening-based findings and diagnoses derived by a physician or a psychologist in mind.

In addition, the cross-sectional sample was recruited based on language and included only asylum seekers who were living in municipal shelters at the time of the survey. This might introduce a bias for the comparison with the billing data, which covers the unselected population of all asylum seekers.

Secondly, both datasets (from the cross-sectional survey and the billing data) were anonymous. Therefore we could compare only the aggregated data and were not able to link both

datasets on the level of the individual patient. We are therefore unable to quantify how many of the individuals screened positive in the survey were detected by the health care system and which care they received.

Thirdly, the prevalence for depression estimated from the billing data might overestimate the true prevalence, since we counted all disorders as depression that might at some point give rise to symptoms of depression. Still, since the majority of diagnoses are major depressions we consider the potential for serious overestimation to be small.

Lastly, our analysis focused only on treatment within the health care system. The reason for this decision was twofold: First, since NGOs and other actors outside the health care system cannot bill the social welfare office for the treatments they offer, they do not appear in the secondary data available to us. Second, providing adequate medical care is the responsibility of the health care system and not of civil society. For this reason, excluding NGOs from our analysis was necessary in order to estimate the extent of the health care system's failure to provide psychological care for all who need it.

Conclusion

Psychological complaints are very common among asylum seekers. Still, only a small proportion of this population receives the corresponding diagnoses and treatment. While various factors can contribute to this gap, there is an urgent need to further assess this deficit and introduce measures to address it.

Supporting information

S1 File.
(DOCX)

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Erklärungen

(1) Ich erkläre, dass ich mich an keiner anderen Hochschule einem Promotionsverfahren unterzogen bzw. eine Promotion begonnen habe.

(2) Ich erkläre, die Angaben wahrheitsgemäß gemacht und die wissenschaftliche Arbeit an keiner anderen wissenschaftlichen Einrichtung zur Erlangung eines akademischen Grades eingereicht zu haben.

(3) Ich erkläre an Eides statt, dass ich die Arbeit selbstständig und ohne fremde Hilfe verfasst habe. Alle Regeln der guten wissenschaftlichen Praxis wurden eingehalten; es wurden keine anderen als die von mir angegebenen Quellen und Hilfsmittel benutzt und die den benutzten Werken wörtlich oder inhaltlich entnommenen Stellen als solche kenntlich gemacht.

02.11.2023, Andreas Niedermaier