BMJ Open Alcohol and substance dependence in the United Arab Emirates: a scoping review protocol

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ABSTRACT

Introduction Despite cultural, religious and legal constraints, alcohol and drug abuse is rising in the United Arab Emirates (UAE). Therefore, we aim to produce a scoping review to summarise available scientific literature on alcohol and substance dependence (ASD) in all ethnic and religious groups in the UAE to inform future scientific inquiries.

Methods and analysis Social work faculty from the UAE University will conduct the scoping review between March 2023 and February 2024. Drawing on the participants, concept, context (PCC) framework, the following review question was developed: What can be learnt from a review of scientific literature on alcohol and substance abuse in all ethnic and religious groups in the UAE? The scientific literature on ASD in the UAE published between 1971 and January 2023, in either English or Arabic, will be considered, including all ethnic, religious and age groups. Grey literature, such as postgraduate dissertations and conference proceedings, will also be considered. Eight English and two Arabic databases and print copies of literature sources in university libraries will be included. EndNote and Covidence software will be used for deduplication, screening and data extraction. Screening and reviewing search results will involve two English-speaking and two Arabic-speaking team members who will work independently. A third reviewer will resolve conflicts. The inter-rater reliability data from the title and abstract screening stage will be exported, and Cohen’s kappa coefficient will be calculated. Data charting informed by the Covidence data extraction tool 2.0 will occur after pilot testing, followed by qualitative content analysis. Reporting of the findings will align with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews tool.

Ethics and dissemination Ethical approval is not required for this study because this is a scoping review of published studies and grey literature. Findings will be disseminated via peer-reviewed journal publications, scientific conferences and a policy brief.

INTRODUCTION

Alcohol and drug abuse is a centuries-old escalating global issue linked to various adverse health and social consequences for individuals, families and communities. In response, target 3.5, one of the United Nations’ 17 Sustainable Development Goals (SDGs) adopted in 2015, aims to ‘strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful alcohol use’. While various terms have been used in scientific literature, alcohol and substance dependence (ASD) will be used throughout this review protocol. Decades of studies have accumulated evidence that adverse childhood experiences, comorbidities such as anxiety, mood disorders and other mental health difficulties, contribute to the development of ASD. Researchers found a worldwide rise in alcohol and other substance abuse during COVID-19, with deteriorating mental health being a major contributing factor.

Research over the years has demonstrated that despite cultural, religious and legal constraints, ASD is on the rise among Muslim Arabs in Islamic nations such as Syria, Jordan and Palestine, Saudi Arabia, and Kuwait. It is no different in the Islamic nation of the United Arab Emirates (UAE) in the Arabian Gulf, a signatory to the 17 SDGs and part of the Gulf Cooperation Council (GCC). The GCC comprises six Islamic countries: Saudi Arabia, Qatar, Kuwait, Bahrain, United Arab Emirates: a scoping review protocol.


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Oman and UAE. A 2009 systematic review identified 60 studies published between 1975 and 2007 that reported on alcohol and other substance abuse addictions among Arab Muslims living in GCC countries. The review comprised seven studies conducted in the UAE between 1994 and 2001. These seven studies examined sociodemographic variables, community samples and legal issues associated with ASD. This review, however, has two significant limitations. First, it excluded potential studies on the economic implications of addiction in the UAE. Alhyas et al aimed their studies at youth. They attempted to gain a deeper understanding of the attitudes and perceptions of adolescents in the UAE regarding substance dependence and to identify factors that, in their view, may influence the risk of substance use and suggested possible interventions. Other scholars described UAE substance abuse patterns, characteristics of misusers, recovery patterns and treatment options. Studies conducted by the National Rehabilitation Centre (NRC) in the UAE examined the drug trend information within a substance-using patient population in the UAE to improve knowledge of the nature, severity and context of ASD in the UAE. Recent conference proceedings addressing ASD of other ethnic and religious groups who work and live in the UAE. Second, ASD research published in English and Arabic in the UAE between the 1980s and early 1990s was excluded.

There has been increased attention in the literature investigating ASD among UAE citizens and expats in the UAE over the last three decades. Some scholars explored the cultural elements and treatment delivery, while others focused their studies on the estimates of the drug trend information within a substance-using patient population in the UAE to improve knowledge of the nature, severity and context of ASD in the UAE. The above-mentioned court also stipulates that if an Emirate’s local law prohibits the consumption of alcohol (and the Emirate has jurisdiction), this law should be applied instead of the Federal Criminal Code. As a result, residents in six Emirates no longer need a license to consume alcohol, whereas Sharjah strictly prohibits it. Nonetheless, the legal drinking age of 21 was maintained, as was a zero-tolerance policy for drinking and driving, being in public while intoxicated and selling or serving alcohol to Muslims.

The UAE has a zero-tolerance for the recreational use and possession of narcotic drugs such as cannabis, cocaine, heroin, methadone, opium and psychotropic drugs, for example, painkillers, unless part of a supervised and regulated medical and scientific activity. Heavy penalties were given for violations, including prison sentences, fines and deportation for expats. In 2021, the laws changed, providing a second chance for first-time offenders and averting prison sentences; dependent individuals who voluntarily present themselves and those reported by family members receive rehabilitation instead of prosecutions. An Emirati arrested for drug offenses may be required to complete a two-year rehabilitation program.

The WHO Status Report on Alcohol and Health in 2018 reported an increase in per capita pure alcohol consumption, from 3.1 L in 2010 to 3.6 L in 2016 in the UAE, making it one of the highest in the Arab World. In a preliminary estimate, Doran reported that out of a total population of 8.26 million in the UAE in 2012, 380,085 (5%) used cannabis, 14,077 (0.2%) used alcohol in a harmful manner and 1408 (0.02%) used opiates. In addition, the cost of addiction was estimated at US$5.47 billion in 2012. In a 6-year review of UAE drug trends, Alhassan et al found that the number of patients admitted to the Government’s NRC for treatment increased significantly. In 2013, there were 545 admissions, 417 of which were first-time treatment admissions, compared with 1750 in 2018 and 502 first-time treatment seekers. Recently, the Ministry of the Interior (Police) announced statistics on drug-related crime in the UAE. Alarming, 8428 people were arrested in the UAE for drug-related crimes in 2021, up 20.8% from 6973 in 2020, confirming a high demand based on what the Qur’an says, so it is against the law for Muslims to own, sell, or drink alcohol or any other illegal substances. Therefore, alcohol consumption is forbidden by Islam and local law in the UAE. However, the UAE’s growing expat population and its reputation as a tourist hotspot may have increased pressure for the country to liberalise its alcohol policies. Before 2020, expats had to hold a licence to buy and consume alcohol from registered providers. In recent amendments to the Federal Criminal Code (Federal Decree By-Law No. 15 of 2020), the Union Supreme Court, the highest court in the UAE, issued a new judgement regarding the position on the use and possession of alcohol. As a result, the regulations on alcohol consumption were again amended to reflect the changing society.

The UAE is an Islamic country in Western Asia, located in the Middle East and came into existence in 1971 as a federation of seven Emirates, namely Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain and Fujairah; and Ras Al Khaimah. The Federal Supreme Council is the highest legislative and executive body, consisting of seven members (one for each Emirate). However, some powers are kept with the individual emirates. The population increased dramatically, from 344,512 in 1971 to 9.4 million in 2022. Over 88% of the population are expats who work and live in the UAE and come from more than 200 different countries.

Since the establishment of the UAE in 1971, the economic and social landscape has shifted significantly. Citizens moved from a nomadic and isolated life into a luxurious lifestyle in urban areas and may have been influenced by the values and traditions of the large expat community. Furthermore, the UAE has emerged as a major tourist hotspot, and its strategic location makes it a significant transshipment point for narcotics like heroin, cocaine, methamphetamine and cannabis. As an Islamic country, the UAE operates under Sharia law. Sharia law is open to change based on what the Qur’an says, so it is against the law for Muslims to own, sell, or drink alcohol or any other illegal substances. Therefore, alcohol consumption is forbidden by Islam and local law in the UAE. However, the UAE’s growing expat population and its reputation as a tourist hotspot may have increased pressure for the country to liberalise its alcohol policies. Before 2020, expats had to hold a licence to buy and consume alcohol from registered providers. In recent amendments to the Federal Criminal Code (Federal Decree By-Law No. 15 of 2020), the Union Supreme Court, the highest court in the UAE, issued a new judgement regarding the position on the use and possession of alcohol. As a result, the regulations on alcohol consumption were again amended to reflect the changing society.

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and supply of narcotic drugs in the UAE, despite harsh penalties for those who manufacture, export, transport, and purchase, sell, and store them.  

To summarise, in light of the increase of ASD in the UAE communities, the long-term adverse effect of ASD, the limitations of the systematic review mentioned earlier, and the growing body of research on ASD in the UAE, a systematic search on the scientific literature on ASD in the UAE that includes all cultural and religious backgrounds over the last 50 years is needed. A scoping review is the most appropriate evidence synthesis to synthesise scientific literature in the UAE. Such knowledge can be used to identify research gaps and guide future scientific inquiry, ensuring that resources are used effectively to combat ASD in the UAE. However, a preliminary search in MEDLINE, the Cochrane Database of Systematic Reviews, PROSPERO and the Joanna Briggs Institute (JBI) Evidence Synthesis on 15 November 2022 and 28 February 2023 revealed no active or ongoing systematic reviews or scoping reviews on ASD in the UAE.

METHODS AND ANALYSIS

The proposed scoping review will be conducted following the JBI’s methodology for scoping reviews, and a team of social work faculty members at the Department of Social Wellbeing, UAE University will execute the review. Reporting of the findings will align with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) tool.

Review question

The JBI’s, PCC framework was used to develop the following review questions (see table 1): What can be learnt from a review of scientific literature on ASD in all ethnic and religious groups in the UAE?

Eligibility criteria

Following the development of the review question, the inclusion and exclusion criteria detailed in table 2, were formulated to guide the identification of eligible studies for inclusion in the review.

Types of literature sources

This scoping review will consider scientific literature such as quantitative, qualitative and experimental study designs, including randomised controlled trials, non-randomised controlled trials, before-and-after studies and interrupted time-series studies. In addition, analytical observational studies, including prospective and retrospective cohort studies, case–control studies and analytical cross-sectional studies, will be considered for inclusion. This review will also consider descriptive observational study designs, including case series, individual case reports and descriptive cross-sectional studies for inclusion. Qualitative studies focusing on qualitative data

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**Table 1** The participant, concept and concept framework

<table>
<thead>
<tr>
<th>Population (important characteristics of participants)</th>
<th>Concept (phenomenon of interest)</th>
<th>Context (research setting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ethnic and religious groups</td>
<td>The scientific literature on alcohol and substance dependence</td>
<td>United Arab Emirates (Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain and Fujairah; and Ras Al Khaimah)</td>
</tr>
</tbody>
</table>

**Table 2** Inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All humans (no restrictions); 2. All ethnic and religious groups, genders or age groups, with alcohol and substance dependence as the sample or an outcome. 3. Empirical studies, including qualitative, quantitative and experimental designs in UAE (Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain and Al Fujairah; and Ras Al Khaimah) 4. Scientific literature on ASD, including studies reporting the prevalence, risk factors, relapse, treatment, aftercare and overdose. 5. English and Arabic languages 6. Online and hard copy sources 7. Grey literature, such as postgraduate dissertations and conference proceedings.</td>
<td>1. Opinion and narrative literature reviews 2. Retrospective correlation studies between alcohol and drug consumption and medical conditions. 3. Studies covering the treatment of medical conditions. 4. Stimulants such as nicotine and caffeine 5. Herbal medicine/products 6. Studies where reporting on findings of UAE sample is not clear.</td>
</tr>
</tbody>
</table>
### Table 3 Example of the preliminary database search script and results

<table>
<thead>
<tr>
<th>Database</th>
<th>Search script</th>
<th>Items found</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed</td>
<td>(&quot;Substance&quot; OR &quot;drug&quot; OR &quot;narcotic&quot; OR [Mesh] OR &quot;alcohol&quot; [Mesh] OR &quot;psychoactive&quot; OR &quot;psychotropic&quot; OR &quot;alcohol&quot; [Mesh] AND &quot;abuse&quot; OR &quot;addiction&quot; OR &quot;dependence&quot; OR &quot;misuse&quot; OR &quot;disorder&quot; [Mesh] AND &quot;United Arab Emirates&quot; OR &quot;UAE&quot; OR &quot;Middle East&quot; OR &quot;Gulf&quot; OR &quot;GCC&quot;) AND PUBYEAR AFT 1971</td>
<td>256</td>
</tr>
</tbody>
</table>
| Embase   | TITLE-ABS-KEY ("Substance" OR drug* OR "narcotic" OR "alcohol.
AND "abuse" OR "addiction" OR "dependence" OR "disorder." AND "United Arab Emirates" OR "UAE" OR "Middle East" OR "Gulf" OR "GCC") AND PUBYEAR AFT 1971 | 309         |
| Scopus   | TITLE-ABS-KEY ("Substance" OR drug* OR "narcotic" OR "alcohol.
AND "abuse", "addiction", "dependence", "misuse", OR "disorder.
AND "United Arab Emirates" OR "UAE" OR "Middle East" OR "Gulf" OR "GCC") AND PUBYEAR AFT 1971 | 640         |
| Ebsco    | TITLE-ABS-KEY ("Substance OR drug*" OR "alcohol"
AND "abuse", "addiction", "dependence", "misuse", OR "disorder.
AND "United Arab Emirates" OR "UAE" OR "Middle East" OR "Gulf" OR "GCC") AND PUBYEAR AFT 1971 | 148         |


will also include, but are not limited to, designs such as phenomenology, grounded theory, ethnography, qualitative description, action research and feminist research. Grey literature, such as conference proceedings and postgraduate dissertations, will also be included. Older literature sources, such as dissertations and theses from the 1970s and 1980s, may be difficult to find online. As a result, on request, a librarian will identify and retrieve hard copy scientific sources from the UAE University library or other libraries.

### Search strategy and terms

The search strategy will locate published and unpublished studies/grey literature in English and Arabic. An initial limited search of PubMed, Scopus, Embase and EBSCOhost was undertaken to identify the relevance of search terms. Following a consultation with a librarian at the UAE University and studying text words contained in the titles and abstracts of search results, the search terms were amended. For example, the search term “use” and “Gulf” were omitted as they elicited irrelevant articles. In addition, search terms “narcotic”, “psychotropic”, and “psychoactive” was added as the preliminary results identified studies using these terms. See table 3 for the database search script and preliminary results for PubMed, Scopus, Embase and EBSCOhost databases. The other databases that will also be included in this review are Cochrane Library, PsycINFO, Science Direct and Web of Science. Arabic databases include Arab Info and AL Manhal. These 10 databases will be divided among the team members and searched between March 2023 and May 2023 using the search script that will be adapted for each database. Studies published in English or Arabic between 1971 and January 2023 will be included due to the limitations of the previous systematic review. However, the studies included in the systematic review will be used to identify eligible studies that may not have been identified through the searches.

For each included database and information source, the following keywords, in both English and Arabic, as well as a combination of the search fields' title, abstract, keywords and MeSH terms, will be applied and adapted: ("Substance" OR "drug" OR "narcotic" OR "psychoactive" OR "psychotropic" OR "alcohol" AND "abuse" OR "addiction" OR "dependence" OR "disorder" AND "United Arab Emirates" OR "UAE" OR "Middle East" OR "Gulf" OR "GCC").

The Arabic search terms are:
- و "الخليج" و "الإمارات العربية المتحدة" و "المملكة العربية السعودية" و "سوريا" و "تونس" و "الجزائر" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عمان" و "السعودية" و "تونس" و "لبنان" و "لبنان" و "تونس" و "قطر" و "البحرين" و "إمارات العربية المتحدة" و "سلطنة عmana...
export research results from the OneDrive folder to an EndNote library, where duplicates will be removed within and across databases. Next, the endNote library will be prepared by AF in an XML file and imported to the systematic review software Covidence, which will be used for further deduplication of records and blinded screening, conflict resolution and selection.

The search results and the study inclusion process will be reported in full in the final scoping review and presented in a PRISMA-ScR flow diagram.

Screening process

The team settings in Covidence will allow importing citations, managing screening by multiple reviewers, data extraction and file export. The screening of titles and abstracts will be done over two stages. During each stage, four team members (two English-speaking and two Arabic-speaking) with a good knowledge of the topic will independently screen titles and abstracts according to the review’s eligibility criteria. In preparation for the first stage, screening titles and abstracts and the inclusion and exclusion criteria will be pilot tested by screening at least ten titles and abstracts during a team meeting. Next, the team will adjust eligibility criteria (see table 2) and formulate a potential justification for exclusion. Finally, four members will independently screen all the English and other Arabic titles and abstracts against the inclusion and exclusion criteria to remove irrelevant material. Justification for exclusions will be documented in Covidence. The screening phase will take place between June 2023 and August 2023. A third independent reviewer will handle conflicts between reviewers (AF for English and AA for Arabic studies). Using Covidence, the inter-rater reliability data from the title and abstract screening stage will be exported, and Cohen’s kappa coefficient will be calculated.

Only full-length articles from studies that reached a consensus on inclusion will be downloaded during the second screening phase. Hereafter, potentially relevant full-length articles will be uploaded on Covidence by AF (English studies) and AA (Arabic studies). Two team members will independently review the English full-text articles, and two Arabic-speaking team members will assess the Arabic articles against the eligibility criteria. Reasons for excluding sources of evidence in full text that do not meet the inclusion criteria will be recorded. Any disagreements between the two reviewer’s teams will be resolved at a team meeting where all authors are present.

After a decision was made on the full-text included studies, the reference lists of the included studies will be screened to identify further eligible studies by KC and KAR. These articles will be imported to Covidence, and AF, VA, AA and MA will screen the titles and abstracts, followed by downloading and screening for eligible full-length articles. Next, two team members, PT and KAR, will contact experts in the field to obtain unpublished studies, reports and conference presentations. These sources will be screened for eligibility by these two team members.

Charting the data

Next, data extraction will take place. The aim is to create a descriptive summary of the results which addresses the scoping review’s objectives and ideally answers the questions of the review. First, data extraction 2.0 will be created in Covidence using the following items: author(s), year of publication, origin/country of origin (where the study was published or conducted), aims/purpose, study population and sample size (if applicable), methodology/methods, key findings that relate to nature and extent of ASD, contextual factors, risk and protective factors. The draft data extraction tool will be modified and revised as necessary while extracting data from each included evidence source. The draft extraction form will first be pilot tested by the two reviewers on at least five studies. Next, the research team will meet to discuss the finalisation of the data extraction during a team meeting. Two reviewers will independently extract data and send it for consensus to a third reviewer on Covidence. Any reviewer disagreements will be resolved through discussion or with an additional reviewer/s. If appropriate, authors of papers will be contacted to request missing or additional data, where required. The extracted data will be circulated hereafter on Google Drive for other team members to review. Any amendments to the data extraction tool will be documented in the Scoping review. Data charting will take place between September 2023 and November 2023.

Data analysis and presentation

After the data extraction, the export function in Covidence will be used to export the data in an excel.csv format. Finally, the data sheet will be prepared for data analysis and synthesis. This study will draw on JBI’s recent publication on qualitative content analysis in scoping reviews and the constant comparison of qualitative data analysis to inform the analysis of extracted data. Following data analysis and an iterative process between the data set and ASD literature, categories will be developed to respond directly to the review question(s). The findings will be presented graphically or in diagrammatic or tabular form. A narrative summary will accompany the tabulated and charted results and describe how the results relate to the review’s question. Data analysis and writing up the scoping review findings will occur between December 2023 and February 2024.

Patient and public involvement

There is no patient involved in the study. However, a summary of the findings will be sent to key stakeholders in the UAE working in the field of ASD in February 2024 to comment on and provide feedback before submission for publication.
Ethics and dissemination

Ethical approval is not required for this study because this is a scoping review of published studies and grey literature. This scoping review’s findings will be disseminated via peer-reviewed journal publications, scientific conference presentations and a policy brief.

Contributors AF conceived of the idea, developed the research questions and study methods and contributed meaningfully to the drafting and editing; she has also approved the final manuscript. AA, MA, KAR, VA, KC, RM and PT aided study methods and contributed meaningfully to the drafting and editing and approved the final manuscript.

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Patient consent for publication Not applicable.

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