

**Common Mental Disorders and Coping Strategies amongst Internally Displaced
Colombians: A systematic review**

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Common Mental Disorders and Coping Strategies amongst Internally Displaced Colombians: A systematic review

Abstract

Mental health is a key issue for populations affected by conflict. The evidence base on the mental health of internally displaced Colombians is undefined, as well as protective strategies utilised by this group. This systematic literature review aims to identify and assess the evidence base on the mental health of Colombian internally displaced persons (IDPs). Specific objectives are to examine (1) prevalence and incidence rates of common mental disorders (CMDs) amongst adult Colombian IDPs, (2) risk factors associated with CMDs amongst this group, and (3) coping strategies used by these displaced persons. A database search was conducted in May 2021. Included studies reported quantitative and/or qualitative mental health outcomes of CMDs, and/or coping strategies, among Colombian IDPs. The search yielded 34 articles. Study quality ranged from adequate to poor, with several containing serious shortcomings. PTSD prevalence ranged from 1.2%-97.3%, anxiety from 0.0%-60.0%, depression from 5.1%-100%, and problematic alcohol use from 8.0%-33.5%. Factors significantly associated with CMDs were inconsistent. Seeking social support and problem-solving strategies were the two most-commonly reported coping strategies. Associations between mental health and coping were largely unreported. As the evidence base is weak, there is a clear need for better quality research in this area.

Keywords: mental health, common mental disorders, coping, internally displaced persons, Colombia

Introduction

As of 2020, there were an estimated 80 million individuals forcibly displaced worldwide due to conflict, human rights violations, or persecution, with over 45 million internally displaced persons (IDPs) living within their home country's borders (UNHCR, 2020). These IDPs lack the rights afforded to refugees, who are protected by legislation such as the 1951 New York Declaration for Refugees and Migrants (The United Nations, 2016).

A 2020 estimate reports just over 8 million IDPs in Colombia (approximately 16% of the population), which makes the country home to the largest population of IDPs worldwide (UNHCR, 2020). Unrest in Colombia surfaced in the mid-1960s. Communist guerrilla groups, the Colombian government and crime syndicates fought to gain control over territory, exposing citizens to over five decades of armed conflict leaving over 220,000 people dead, 27,000 kidnapped and countless victims of gender-based violence (Tamayo-Agudelo & Bell, 2019). Though the conflict officially ended in 2016 with the signing of a peace accord between the Revolutionary Armed Forces of Colombia - People's Army (FARC) and the Colombian government, violence associated with armed groups actually increased between 2016 and 2018 (Human Rights Watch, 2019).

Figure 1 shows the number of new IDPs arriving in Colombian departments from 2000-2004 per 100 population. New IDPs were spread throughout the country, but particularly concentrated in the northern departments of La Guajira, Magdalena, Sucre and Bolívar, north-eastern departments of Chocó and Antioquia, eastern departments of Valle del Cauca, south-eastern department of Putumayo, the eastern departments of Arauca, Vichada, Guainía and Vaupes, and the central departments of Meta and Guaviare.

[insert Figure 1 about here]

Internally displaced and other forcibly displaced groups frequently suffer from elevated rates of common mental disorders (CMDs) including depression, post-traumatic stress disorder (PTSD), anxiety, somatic disorders, and substance abuse (Porter & Haslam, 2005; Steel et al., 2009), though it is important to acknowledge that not all forcibly displaced persons have mental disorders. Causes of elevated CMDs among conflict-affected persons worldwide include experiencing violence (Mollica et al., 1998; Steel et al., 2009), sexual assault (Lončar et al., 2006), abduction, murder, or disappearance of family members and friends (ICRC, 2018), and the loss of social support networks, livelihoods, employment, and assets (Roberts & Browne, 2011). Additionally, having no safe place to migrate to has severe implications on IDPs' sense of identity and mental well-being (Bonilla-Escobar et al., 2017).

The evidence base on the prevalence of and contributing factors for CMDs among IDPs in Colombia is undefined. A 2013 review on forced displacement and mental health in Colombia provided no methodology on how articles were selected (see Andrade Salazar et al., 2013). A 2014 review on mental disorders among Colombian IDPs and entrapped populations featured a narrow search on Google scholar and 2 databases and excluded grey literature (see Campo-Arias et al., 2014). A recent review on forced displacement, resilience, and mental health included only articles published in the *Human Occupational Journal* (see Fernández-Moreno, 2019). The most recent relevant review, published in 2020, focused exclusively on substance abuse among the displaced Colombian population (see Berrouet-Mejía & Cardona-Arias, 2020), excluding articles focused on other CMDs. Thus, a systematic review on Colombian IDPs, CMDs and coping drawing on a wide search of academic databases remains lacking in the literature.

This systematic literature review fills this gap by compiling and assessing the evidence base on the mental health of adult Colombian IDPs by examining (1) prevalence and/or incidence

rates of CMDs, (2) risk factors associated with CMDs, and (3) coping strategies used by Colombian IDPs.

Methods

Search Strategy

This systematic review followed the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). An initial search of nine databases (MEDLINE, EMBASE, Global Health, PsycINFO, CINAHL Plus, Web of Science, LILACS, SciELO and Open Grey) was conducted on 15 July 2019 and updated on 16 May 2021. Search terms focused on CMDs, IDPs, and Colombia. The term ‘coping’ was deliberately not included in the search. The nuanced nature of coping meant that some authors may not have explicitly framed their studies about coping but would nevertheless have incorporated key elements of coping that matched the definition and inclusion criteria of this review. The MEDLINE search strategy of the updated search is appended online (Appendix A).

Additional relevant articles were identified through manual searches of reference lists of included articles and related reviews, and a forward-citation Google scholar search. Websites of non-governmental organisations (NGOs) and Colombian government websites were manually searched to identify relevant grey literature.

Eligibility Criteria

We included observational and intervention studies which reported prevalence and/or incidence of CMDs (including anxiety [PTSD and panic disorders], depression, somatization disorders and substance abuse) amongst adult Colombian IDPs, as well as qualitative studies exploring Colombian IDPs’ coping strategies. Where intervention studies reported prevalence or incidence of CMDs, baseline scores were extracted. Studies which included both children and adults without

disaggregated results by age were included if the sample included mostly adults. Case studies, editorials, book chapters and PhD and Masters theses were excluded. Where several articles relating to the same research project presented similar or updated findings, we included the main or most recent article. We excluded studies on combatants, entrapped populations, and refugees in Colombia. We excluded papers published before 2000. No language restrictions were applied.

Selection process

Databases were searched according to the search terms above and downloaded into Mendeley referencing software. After de-duplication, the first author screened titles and abstracts against the eligibility criteria. Full texts of those that met eligibility criteria were accessed and screened. Approximately one third of full texts were independently double-screened by two co-authors, who resolved disagreements. Articles fulfilling all the inclusion criteria were included.

Data extraction and analytic approach

With the unanimity of all three authors, a standard checklist of output information was prepared. We extracted the following data from included studies: author, year of publication, region, publication language, study aim and objectives, study design, methods, sample size, population details, and outcomes related to the objectives of this review.

We defined coping as cognitive and behavioural efforts made to master, tolerate, or reduce internal and external demands (Folkman & Lazarus, 1980). Extracted coping strategies were categorised according to a taxonomy including the following core coping categories: problem solving, support seeking, avoidance, distraction, and positive cognitive restructuring (Skinner et al., 2003). Problem solving includes instrumental action toward a problem, such as planning and applying effort to address an issue. Seeking social support involves a reaching out to others such as family, friends, professionals, and religious figures to receive comfort and advice. Avoidance

includes efforts to stay away from stressful situations or thoughts. Distraction refers to attempts to deal with a stress by engaging in pleasurable activities. Cognitive restructuring refers to attempts to change one's perspective of a stressful situation to see it in a more positive light.

The heterogeneity of research designs, CMD assessment tools, and coping strategies prevented a pooling of results. Therefore, a narrative description is included rather than a meta-analysis of quantitative articles. Qualitative results on coping are reported thematically according to the taxonomy outlined above (Skinner et al., 2003).

Quality assessment

We used the Strengthening the Reporting of Observational studies in Epidemiology (STROBE) checklist (von Elm et al., 2008), the Critical Appraisal Skills Program (CASP) checklists (Critical Appraisal Skills Programme, 2018a, 2018b) and the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2019) to assess the quality of quantitative, qualitative and mixed-methods studies respectively. The quality assessment was not used to exclude articles, but to apprise the quality level of articles.

Results

Study selection

The results of the search are summarised in Figure 2. A total of 304 records were identified in the database search, with 34 ultimately included in the review.

[insert Figure 2 about here]

Details for the 34 included studies are shown in online Appendix B. Two were grey literature (Ministerio de Salud - Instituto Nacional de Salud, 2001; Torres de Galvis et al., 2010) and the remainder journal articles. Twenty-four were in Spanish, nine in English and one in French.

Twenty-seven were quantitative (Acosta et al., 2019; Alejo et al., 2007; Andrade Salazar, 2011; Andrade Salazar et al., 2011; Andrade Salazar et al., 2012; Botelho de Oliveira & Conde, 2011; Cáceres et al., 2002; Castaño et al., 2019; Castaño et al., 2018; Echenique et al., 2008; Juárez & Guerra, 2011; Lagos-Gallego et al., 2017, 2019; Londoño et al., 2005; Londoño et al., 2011; Ministerio de Salud - Instituto Nacional de Salud, 2001; Moya & Carter, 2019; Ortega et al., 2020; Puertas et al., 2006; Ramírez-Giraldo et al., 2017; Ramirez et al., 2016; Sanchez-Padilla et al., 2009; Shultz et al., 2019; Sinisterra Mosquera et al., 2010; Sistiva-Castro & Sabatier, 2005; Tamayo Martínez et al., 2016; Torres de Galvis et al., 2010), with the majority using cross sectional surveys at the individual or household level and three drawing on health records. There was one intervention study (Shultz et al., 2019).

There were five qualitative articles (Albarracín Cerquera & Contreras Torres, 2017; Bonilla-Escobar et al., 2017; Mogollon Perez & Vazquez Navarrete, 2006; Mogollon Perez et al., 2003; Santaella-Tenorio et al., 2018) which all used semi-structured interviews, with one additionally using focus group discussions (Bonilla-Escobar et al., 2017) and one exploring body language through dance (Albarracín Cerquera & Contreras Torres, 2017). Two studies used mixed methods (Lozano & Gómez, 2004; Richards et al., 2011).

Two studies focused on all department of Colombia (Lagos-Gallego et al., 2017, 2019) and three on Colombia at a national level (Lagos-Gallego et al., 2017, 2019; Tamayo Martínez et al., 2016). In order of decreasing frequency, the remaining studies focused on the departments of Cundinamarca (ten studies) (Acosta et al., 2019; Albarracín Cerquera & Contreras Torres, 2017; Castaño et al., 2019; Castaño et al., 2018; Lozano & Gómez, 2004; Mogollon Perez & Vazquez Navarrete, 2006; Mogollon Perez et al., 2003; Shultz et al., 2019; Sinisterra Mosquera et al., 2010; Torres de Galvis et al., 2010), Valle del Cauca (six studies) (Acosta et al., 2019; Andrade Salazar, 2011; Bonilla-Escobar et al., 2017; Castaño et al., 2019; Castaño et al., 2018; Santaella-Tenorio et

al., 2018), Antioquia (Acosta et al., 2019; Castaño et al., 2019; Castaño et al., 2018; Richards et al., 2011; Torres de Galvis et al., 2010) and Sucre (with five studies each) (Echenique et al., 2008; Moya & Carter, 2019; Puertas et al., 2006; Ramírez-Giraldo et al., 2017; Torres de Galvis et al., 2010), Chocó (Bonilla-Escobar et al., 2017; Londoño et al., 2005; Santaella-Tenorio et al., 2018; Torres de Galvis et al., 2010), Santander (Alejo et al., 2007; Botelho de Oliveira & Conde, 2011; Sistiva-Castro & Sabatier, 2005; Torres de Galvis et al., 2010) and Tolima (Andrade Salazar et al., 2012; Moya & Carter, 2019; Sanchez-Padilla et al., 2009; Torres de Galvis et al., 2010) (four studies each), Quindío (Andrade Salazar et al., 2011; Londoño et al., 2011), Bolívar (Cáceres et al., 2002; Ministerio de Salud - Instituto Nacional de Salud, 2001), Boyacá (Juárez & Guerra, 2011; Torres de Galvis et al., 2010), Córdoba (Moya & Carter, 2019; Torres de Galvis et al., 2010) and Magdalena (Ortega et al., 2020; Torres de Galvis et al., 2010) (two studies each), and Cesar (Torres de Galvis et al., 2010), Meta (Torres de Galvis et al., 2010), Vichad (Torres de Galvis et al., 2010), Guaviare (Torres de Galvis et al., 2010), Caquetá (Torres de Galvis et al., 2010), Nariño Putumayo (Torres de Galvis et al., 2010) and Amazonas (Torres de Galvis et al., 2010) (one study each). Several studies focused on more than one department.

Sample sizes of the included studies varied between 4 and 11,596 IDPs (Albarracín Cerquera & Contreras Torres, 2017; Torres de Galvis et al., 2010), though nation-wide surveys did not report their sample sizes. Five studies had roughly equal numbers of males and females (Andrade Salazar, 2011; Lozano & Gómez, 2004; Ministerio de Salud - Instituto Nacional de Salud, 2001; Santaella-Tenorio et al., 2018; Tamayo Martínez et al., 2016), while 15 featured a notable overrepresentation of female participants (Acosta et al., 2019; Alejo et al., 2007; Bonilla-Escobar et al., 2017; Botelho de Oliveira & Conde, 2011; Castaño et al., 2018; Juárez & Guerra, 2011; Londoño et al., 2005; Londoño et al., 2011; Mogollon Perez et al., 2003; Puertas et al., 2006; Ramirez et al., 2016; Richards et al., 2011; Sanchez-Padilla et al., 2009; Sinisterra Mosquera et

al., 2010; Sistiva-Castro & Sabatier, 2005) and four included only females (Albarracín Cerquera & Contreras Torres, 2017; Mogollon Perez & Vazquez Navarrete, 2006; Ortega et al., 2020; Shultz et al., 2019). Males were overrepresented in only two studies (Castaño et al., 2019; Santaella-Tenorio et al., 2018).

Sixteen studies reported prevalence or incidence of one or more CMDs (Andrade Salazar et al., 2011; Andrade Salazar et al., 2012; Botelho de Oliveira & Conde, 2011; Echenique et al., 2008; Lagos-Gallego et al., 2017; Londoño et al., 2005; Londoño et al., 2011; Moya & Carter, 2019; Ortega et al., 2020; Puertas et al., 2006; Ramírez-Giraldo et al., 2017; Ramirez et al., 2016; Shultz et al., 2019; Sinisterra Mosquera et al., 2010; Sistiva-Castro & Sabatier, 2005; Tamayo Martínez et al., 2016; Torres de Galvis et al., 2010), with an additional twelve reporting prevalence/incidence and factors associated with CMDs (Acosta et al., 2019; Alejo et al., 2007; Andrade Salazar, 2011; Cáceres et al., 2002; Castaño et al., 2019; Castaño et al., 2018; Echenique et al., 2008; Juárez & Guerra, 2011; Lagos-Gallego et al., 2019; Ministerio de Salud - Instituto Nacional de Salud, 2001; Richards et al., 2011; Sanchez-Padilla et al., 2009). Seven studies focused on coping strategies (Albarracín Cerquera & Contreras Torres, 2017; Bonilla-Escobar et al., 2017; Lozano & Gómez, 2004; Mogollon Perez & Vazquez Navarrete, 2006; Ramirez et al., 2016; Santaella-Tenorio et al., 2018; Sistiva-Castro & Sabatier, 2005).

Quality assessment

Supplementary Appendix C contains the results of the studies' quality assessment. The average score (out of 10) achieved by included qualitative articles was 7.6. Common shortcomings included not referring to bias and providing conclusions insufficiently substantiated by collected data.

The majority of quantitative studies were scored at medium-to-low quality using the STROBE checklist. Risk of bias was discussed only in 9 of the 27 quantitative studies, only 9 studies offered an appraisal on the generalisability of their results and only 11 disclosed funding information. Statistical methods were described sparsely or not at all in 14. Mixed-methods studies were of good quality.

Other recurrent issues were the lack of recruitment details or a thorough discussion of methods limitations. Validity testing of assessment tools for the Colombian setting was largely absent from studies. The evidence base could be improved by a greater attention to sources of bias and results generalizability.

Prevalence and incidence of Common Mental Disorders and Associated Factors

Appendix D shows the prevalence and incidence of the following CMDs: PTSD, anxiety and panic disorder, depression, and substance use.

PTSD and associated factors

Of all CMDs, PTSD prevalence was the most commonly-reported outcome in the included papers, presented in 18 (Acosta et al., 2019; Alejo et al., 2007; Andrade Salazar, 2011; Botelho de Oliveira & Conde, 2011; Castaño et al., 2018; Echenique et al., 2008; Juárez & Guerra, 2011; Londoño et al., 2005; Londoño et al., 2011; Ortega et al., 2020; Ramírez-Giraldo et al., 2017; Ramirez et al., 2016; Richards et al., 2011; Sanchez-Padilla et al., 2009; Shultz et al., 2019; Sinisterra Mosquera et al., 2010; Sistica-Castro & Sabatier, 2005; Tamayo Martínez et al., 2016) and one paper reporting 5-year incidence (Lagos-Gallego et al., 2017). Symptom prevalence ranged from 18.2% (amongst 677 IDPs in an unspecified location) (Ramirez et al., 2016) to 100% (amongst 20 displaced persons El Cairo) (Andrade Salazar, 2011), whilst diagnostic-level prevalence ranged from 1.2% (amongst 943 IDPs drawn across Colombia) (Tamayo Martínez et al., 2016) to 97.3% (among 110 IDPs in Bogotá) (Sinisterra Mosquera et al., 2010). Two studies instead reported

lifetime prevalence, at 4.2% (Echenique et al., 2008) and 9.9% (Castaño et al., 2018). Five-year incidence ranged from a high in Quindío at 459.8 cases per 100,000 people to a low of 12.6 in Bolívar, and an average across IDPs in Colombia of 73.8 per 100,000 people (Lagos-Gallego et al., 2017). Studies reporting PTSD prevalence/incidence draw on an extremely broad set of IDP groups and used a diverse set of 16 measurement tools which were not clearly stated as previously validated for the study population. We observed a trend of higher prevalence of PTSD prevalence in studies using self-report scales versus structured interview assessments. The only high-quality paper reporting PTSD prevalence was Richards et al. (2011), who reported a comparatively high prevalence of 88.3 in a group of IDPs in Medellín. Low-quality papers reported notably higher rates of PTSD symptoms than medium-quality, though there was little difference in prevalence of diagnosed PTSD.

The table in Appendix E shows significant relationships between CMDs and independent variables. Demographic factors significantly associated with PTSD were equivocal; female gender was significantly associated with PTSD symptoms in one study on 109 IDPs in Medellín (Richards et al., 2011), yet other studies (on 851 IDPs in Bucaramanga and 142 IDPs in Sincelejo) found no such association with either symptoms (Alejo et al., 2007; Echenique et al., 2008) nor diagnosis (Echenique et al., 2008). Findings on age are also inconclusive, with older age significantly associated with symptoms in one study (Alejo et al., 2007) but not another (Echenique et al., 2008). One study found significant differences in PTSD symptoms by marital status, with those married or cohabiting yielding significantly higher rates than their single counterparts (Alejo et al., 2007). However, another study found no relationship between marital status and PTSD symptoms or diagnosis (Echenique et al., 2008). Low level of education was significantly associated with PTSD symptoms in one study (Alejo et al., 2007), but this was not replicated elsewhere.

Trauma experienced prior and during displacement was significantly associated with PTSD in one study (Alejo et al., 2007), which identified relationships between kidnapping, exposure to toxic substances and threat to loss of life and symptoms. One study focused exclusively on IDPs in the department of Boyacá found a significantly higher rate of cases meeting diagnostic criteria amongst IDPs displaced from the departments of Bolívar, Cesar or Meta specifically (Juárez & Guerra, 2011). Health problems and chronic physical diseases were significantly associated with diagnosis and symptoms of PTSD (Alejo et al., 2007; Juárez & Guerra, 2011), as were alcohol consumption (Alejo et al., 2007), depression (Alejo et al., 2007; Juárez & Guerra, 2011), anxiety (Juárez & Guerra, 2011) and somatization (Juárez & Guerra, 2011).

Anxiety and panic disorder prevalence and associated factors

Nine studies reported anxiety prevalence (Andrade Salazar et al., 2011; Castaño et al., 2018; Londoño et al., 2005; Ministerio de Salud - Instituto Nacional de Salud, 2001; Moya & Carter, 2019; Ramírez-Giraldo et al., 2017; Richards et al., 2011; Sanchez-Padilla et al., 2009; Shultz et al., 2019) and three additionally reported panic disorder prevalence (Castaño et al., 2018; Londoño et al., 2005; Ramírez-Giraldo et al., 2017). Prevalence of symptoms ranged from a low of 12.0% in a study on 100 IDPs in the city of Armenia (Andrade Salazar et al., 2011) to 40.5% in a study of 279 IDPs in Bogotá (Shultz et al., 2019). Studies measuring the diagnostic threshold for anxiety ranged from 0% in a study of over 7,000 IDPs in Cartagena (Ministerio de Salud - Instituto Nacional de Salud, 2001) to almost 60% in a study on 109 IDPs in Medellín (Richards et al., 2011). The nine prevalence studies used six assessment tools. There were too few studies on anxiety to determine whether quality of studies was related to reported prevalence of diagnosis or symptoms.

Only two studies examined variables associated with anxiety prevalence. A study on 7,126 IDPs in Cartagena found a relationship between anxiety and lower education levels and greater

age (Ministerio de Salud - Instituto Nacional de Salud, 2001), though another study on 109 IDPs in the city of Medellín found no association between these variables (Richards et al., 2011).

Depression prevalence and associated factors

Twelve studies reported prevalence of depression amongst IDPs (Acosta et al., 2019; Andrade Salazar, 2011; Andrade Salazar et al., 2011; Cáceres et al., 2002; Castaño et al., 2018; Londoño et al., 2005; Ministerio de Salud - Instituto Nacional de Salud, 2001; Moya & Carter, 2019; Ramírez-Giraldo et al., 2017; Richards et al., 2011; Sanchez-Padilla et al., 2009; Shultz et al., 2019), with rates for symptoms ranging from 13.0% amongst IDPs in Armenia to 50.9% among 279 IDPs in Bogotá. An even wider spread in scores was observed across studies reporting diagnostic-level rates, from 5.1% in a sample of 471 IDPs in Bogotá, Medellín & Buenaventura to 100% amongst 20 IDPs in the municipality of El Cairo, though this outcome consisted of mild, moderate, and severe depression. Like the findings for PTSD and anxiety, findings on depression are based on a wide range of assessment tools, and higher prevalence rates for depression diagnosis were observed in studies using self-report scales rather than structured interviews. There were only two high-quality articles reporting diagnostic prevalence, yielding an average of 39.7. Most of the articles were medium quality, which reported an average diagnostic prevalence of 22.3. The two lower-quality articles gave a much higher average prevalence of 68.5, suggesting a trend with lower-quality articles reporting higher prevalence.

Only three studies reported on factors associated with depression (Cáceres et al., 2002; Ministerio de Salud - Instituto Nacional de Salud, 2001; Richards et al., 2011). Significantly higher rates of depression were observed among widows (Cáceres et al., 2002; Ministerio de Salud - Instituto Nacional de Salud, 2001) and those separated from partners (Richards et al., 2011). Contradictory results were observed regarding gender and education level.

Substance use prevalence and associated factors

Nine studies reported prevalence rates relating to alcohol use (Acosta et al., 2019; Andrade Salazar et al., 2012; Castaño et al., 2019; Castaño et al., 2018; Londoño et al., 2005; Puertas et al., 2006; Ramirez et al., 2016; Tamayo Martínez et al., 2016; Torres de Galvis et al., 2010) and one on incidence rates (Lagos-Gallego et al., 2019). Prevalence rates for problematic alcohol consumption ranged from 8.0% in a small study conducted in Boyacá and Quibdó (Londoño et al., 2005) to 33.5% observed amongst 677 IDPs in an unspecified location (Ramirez et al., 2016). A large survey covering 17 departments found wide variation in alcoholism, from a low of 0.7% in Sucre to a high in Chocó of 24.9%, with an average of 10.1%. (Torres de Galvis et al., 2010). Higher prevalence of diagnosed problematic alcohol consumption were found in studies employing self-report assessments rather than structured interview assessments. There was no apparent link between study quality and prevalence of either symptoms or diagnosis. Of the ten studies examining substance use, five were of low quality and only one judged high quality.

Male sex was consistently significantly associated with any measurement of alcohol use, ranging from consumption in the last year (Castaño et al., 2019) or 30 days (Puertas et al., 2006) to clinical-threshold problematic alcohol consumption (Lagos-Gallego et al., 2019; Ramirez et al., 2016). Being aged 49 and younger (Lagos-Gallego et al., 2019), single, widowed or separated (Ramirez et al., 2016), and being displaced alone (Castaño et al., 2019) within the past year (Puertas et al., 2006) were significantly associated with higher rates of alcohol use. Certain traumatic experiences, including experiencing a terrorist attack, threats, and land dispossession were significantly associated with alcohol use in the previous year (Castaño et al., 2019).

Prevalence of drug use was reported by three studies (Acosta et al., 2019; Castaño et al., 2019; Castaño et al., 2018) Lifetime usage of drugs was reported for marijuana (11.2%), cocaine (3.5%), over-the-counter medications (2.5%), inhalants (2.3%), basuco (low-grade cocaine)

(2.1%), hallucinogens (1.0%), injection drugs (0.7%) and other drugs (1.5%) (Castaño et al., 2018). Any illicit substance use in the previous year was observed at 13.0%,(Castaño et al., 2019) and marijuana and cocaine dependence at 2.1% and 0.2% respectively (Acosta et al., 2019). One study found significant associations between drug use disorders and male sex, and experiencing traumatic events such as threats and witnessing homicide and/or massacres (Castaño et al., 2018).

Coping strategies and associations with CMDs

Eight studies explored how IDPs coped with their circumstances and/or with poor mental health (Albarracín Cerquera & Contreras Torres, 2017; Bonilla-Escobar et al., 2017; Cáceres et al., 2002; Lozano & Gómez, 2004; Mogollon Perez & Vazquez Navarrete, 2006; Mogollon Perez et al., 2003; Ramirez et al., 2016; Sistiva-Castro & Sabatier, 2005) (see Appendix F). Seeking social support and problem solving were the most observed strategies, with six studies reporting activities in these categories.

Emotional support was sought from family, friends, neighbours, non-governmental organisations and community networks (Albarracín Cerquera & Contreras Torres, 2017; Bonilla-Escobar et al., 2017; Cáceres et al., 2002; Lozano & Gómez, 2004; Mogollon Perez et al., 2003; Ramirez et al., 2016) and through cultural events such as communal mourning rituals (Bonilla-Escobar et al., 2017). Problem solving activities were varied and included requesting material assistance from others (Cáceres et al., 2002; Lozano & Gómez, 2004), seeking employment opportunities (Lozano & Gómez, 2004), assuming the family ‘breadwinner’ role (Mogollon Perez & Vazquez Navarrete, 2006), proactively confronting adverse experiences (Ramirez et al., 2016; Sistiva-Castro & Sabatier, 2005), identifying legal rights (Bonilla-Escobar et al., 2017), and participating in events to strengthen solidarity with other IDPs (Mogollon Perez & Vazquez Navarrete, 2006).

Cognitive restructuring was observed in five studies, and included such strategies as interpreting traumatic events through a religious lens (Bonilla-Escobar et al., 2017; Ramirez et al., 2016; Sistiva-Castro & Sabatier, 2005), recognizing opportunities, capabilities (Albarracín Cerquera & Contreras Torres, 2017), and benefits (Cáceres et al., 2002) to being displaced, accepting circumstances (Ramirez et al., 2016), and adopting an optimistic outlook (Sistiva-Castro & Sabatier, 2005). Escape-avoidance and distraction-type coping was reported less often, and included such activities as trying to forget negative experiences (Mogollon Perez et al., 2003), waiting for problems to resolve on their own (Ramirez et al., 2016), using social media (Mogollon Perez et al., 2003), and consuming alcohol (Ramirez et al., 2016).

Only one study examined statistical relationships between coping types and CMDs. Both proactive coping and evasive coping were significantly associated with PTSD diagnosis among 49 IDPs in Barrancabermeja (Sistiva-Castro & Sabatier, 2005), while cognitive and religious-based coping, as well as adopting an optimistic outlook, were unrelated to PTSD (Sistiva-Castro & Sabatier, 2005).

Discussion

This paper reports the prevalence of and risk factors for CMDs among IDPs in Colombia, along with strategies used to cope with poor mental health and challenging circumstances. Though the review included 34 articles, the focus was divided across CMD types, amounting to a small number of studies focused on each CMD. The evidence base on factors significantly associated with CMDs was even more sparse. As such, there is a lack of evidence on the variables linked to CMDs amongst Colombian IDPs. We identified only 8 studies focused on coping strategies of this group, and there was a lack of linkage between coping and mental health outcomes.

Prevalence of CMDs ranged widely between studies, representing the range of quality of included articles, the diverse groups of IDPs sampled, their experiences, and resources to cope, as well as the scope of assessment tools used to measure mental health outcomes. For PTSD, depression and alcohol use, prevalence of diagnosed conditions was notably higher in studies drawing on self-report measurement tools rather than structured interview assessment. We note that this observation, especially for alcohol use, is based on few data points and requires additional research findings to confirm the trend. Due to the overall weaknesses in the evidence base, we cannot confidently judge the prevalence of CMDs among IDPs in Colombia. For instance, though 18 papers presented PTSD prevalence, the quality of the papers is not high enough to confidently suggest a prevalence in this population.

Factors significantly associated with CMDs were inconsistent, apart from a persistent link between male sex and alcohol use which is consistent in the wider literature on alcohol use amongst the forcibly displaced (Weaver & Roberts, 2010). As women tend to report higher levels of CMDs both globally (Steel et al., 2014) and within other forcibly displaced populations (Porter & Haslam, 2005), the lack of evidence of this trend amongst Colombian IDP women is striking. This is especially notable considering the increased economic pressures placed on Colombian women who have become head of households after being displaced (Albarracín Cerquera & Contreras Torres, 2017), and presumed mental health consequences of this. Nonetheless, a lack of relationship between PTSD and gender has been noted in another systematic review on conflict-affected people (Steel et al., 2009).

Seeking social support and problem-solving were the two most-commonly reported coping strategies, with cognitive restructuring, avoidance, and distraction reported in fewer studies. This finding largely resonates within the larger evidence base on coping strategies amongst conflict-affected civilians (including IDPs) in low and middle income countries (Seguin & Roberts, 2017).

The relationship between coping and mental health outcomes amongst Colombian IDPs is largely still unknown. The current evidence base is limited by the cross-sectional design of almost all the quantitative studies (though the challenges of using alternative study designs are recognised). This limitation means it is not possible to discern the temporal relationship between coping and mental health.

The included studies covered all 32 departments in Colombia, demonstrating the widespread reality of displacement in the country. The general trend demonstrated IDPs being forcibly displaced from rural parts of Colombia and pushed to start new lives in urban locations, due to more economic opportunities. The overall evidence base reflects the reality of where IDPs are displaced from and where they relocated to.

Discrepancies in the validation of tools to measure the mental health outcomes in Colombia, and whether not they were translated correctly weakened the reliability of the findings. Twenty-five measurement tools were used to measure mental health outcomes in the included studies. This wide range of tools potentially led to methodological and statistical heterogeneity. Methodological diversity of included studies restricted the cross-applicability of findings and the variety of CMDs were limited to the three named in the inclusion criteria.

Strengths and Limitations

This review focuses on the largest population group of IDPs globally, who have been excluded from previous global reviews on mental health outcomes and coping amongst conflict-affected groups (Porter & Haslam, 2005; Seguin & Roberts, 2017; Steel et al., 2009). This review includes studies found in both published and grey literature, reporting both quantitative and qualitative outcomes in English, Spanish and French. Not all full texts were double screened, which we recognise as a weakness in our approach. Because the data extraction was completed by only one

author, potential for selection and extraction bias is present. This is mitigated by oversight of and discussion with co-authors when needed during the screening and extraction process and quality appraisal being completed by a second author. Meta-analysis and meta-synthesis of quantitative and qualitative articles were not completed due to the heterogeneity of outcomes which prevented a pooling of the quantitative results, different coping categories, and methods. We recognise generalisability to other contexts is constrained due to the highly context-specific nature of the included articles.

Conclusion

Large-scale and generalisable studies of mental health and coping are sparse in the literature on Colombian IDPs. Further research is needed to refine understanding of CMDs amongst IDPs in Colombia, as well as their coping strategies. Such findings may inform policy to implement the most contextually appropriate interventions. Key modalities for redressing help-seeking needs and coping in these groups could include strengthening social support networks and exploring community-based engagement and participation.

Interventions to address this issue have been done on a small scale, with potential cost-effectiveness, but impact assessments are still required for further scale-up. It is vital to keep in mind that IDPs are among the most vulnerable and neglected populations in the world, and often are forced to tolerate a lack of support from their own governments. Such factors need to be taken into consideration when scaling up multisectoral approaches to mental health care for IDPs. Colombia has recognised the need for mental health support among IDPs. Through collaboration with essential stakeholders, it will be possible to decrease the burden among this forgotten population.

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Figure 1. Number of new IDPs (2000-2004) per 100 population

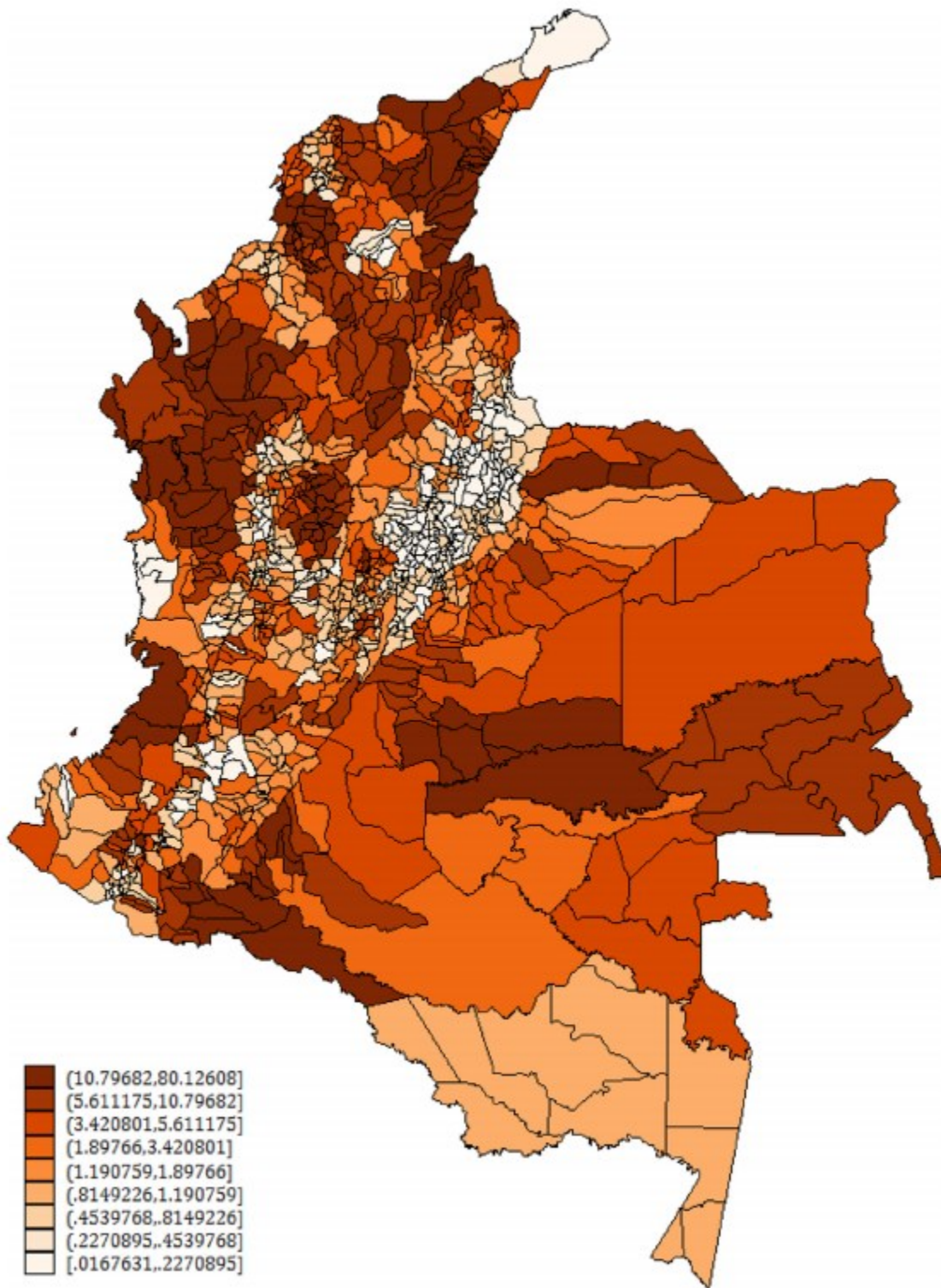


Figure credit: Morales (2017)

Figure 2: Results of screening process

