Objective: In the Indian setting, communal riots characterized by intergroup violence have been common and have had an impact on the lives of both people and communities. The goal of this systematic review is to investigate the psychological effects of Indian communal riots in depth. Through a comprehensive review of the literature, the study aims to identify recurring themes, patterns, and variances in the psychological effects encountered by victims of community violence.

Methods: The researcher searched Science Direct, PubMed, Web of Science, Google Scholar, and PsycINFO for research published between the year 2000 and the year 2022 in each of these databases. The Newcastle–Ottawa Scale was employed to evaluate the study’s quality.

Results: After identifying 1189 publications in all, 195 of them were chosen for full-text examination, and 41 research were ultimately included. Twenty studies examined depression and mental health with a prevalence rate of 49%. Five studies (12%) examined post-traumatic stress disorder. In places devastated by riots, the prevalence of post-traumatic stress disorder varied from 4% to 41%. Other studies investigated anxiety, alcohol abuse, and homelessness. However, two studies revealed that group activities could lower depression and suicide rates, perhaps as a result of increased social cohesiveness and group catharsis among subpopulations.

Conclusion: The researcher investigated the connection between collective activities and mental health in this systematic review, providing strong evidence that riots, protests, and other collective actions—even peaceful ones—can harm mental health outcomes. Thus, healthcare providers must be aware of the psychological and emotional effects of riots, revolutions, and demonstrations. It is essential to do more study on this newly identified sociopolitical driver of mental health.

Keywords: communal riots, psychological well-being, systematic review

Over 180 nations, or 99% of the world’s population, have experienced collective activities including protests, riots, and revolutions over the past few decades.1,2 Globally, they are growing,3,4 however, it’s still not quite understood how group action affects mental health. Much more research has been done on the impact of armed conflicts, terrorist attacks, natural catastrophes, and man-made disasters on the mental health of huge populations.5–8 These researches demonstrate higher levels of resilience and psychopathology in the face of widespread community trauma, although it is yet unknown how collective behaviors relate to healthcare professionals. A different area of study is required since collective activities vary from further significant population events in nature. As a result, we thoroughly examined studies on global collective action and mental health.

India is a multi-religious country. In the nation, various religions and their adherents can be found. India is a secular nation, so it emphasizes the equality of people and humanity. However, on occasion, because of careless mistakes and flaws, our nation experiences some issues that degrade and humiliate mankind. Communal riots are one of them. One of the biggest issues with human rights now is communal violence or conflict between groups who define themselves by their differences from one another. But compared to earlier decades, the violence that has persisted over the last 20 years is different. The current sectarian violence is not the fault of any one extremist organization, but rather of the governments that use inter-group animosity to achieve power. These
systemic causes of intergroup conflict pose a challenge to the foundational values of democracy and equality. Identity politics is the root cause of current racial violence. Identity politics, whether based on race, sex, caste, class, language, religion, or national or regional origin, emphasize the group aspect of rights, experiences, and identities. In many instances, the political-culture forces involved in identity politics want to impose their political dominance, cultural hegemony, and major legal changes. Communal riots are fairly common throughout the country as a result of all these conflicts. Mumbai, Moradabad, Meerut, Gujarat, and Aligarh are the areas of India that are most sensitive.

Religious festivals and places of worship have been the most apparent root of conflicts between communities. However, various economic and political causes have deepened and aggravated the split between the two populations beneath the pattern of injured religious sentiments. These have included controversial British colonial practices, economic sanctions imposed on Muslim textile workers in the 1930s, and other types of economic rivalry existing before separation. In 1969, there was the deadliest communal violence since independence, marking the start of the state’s partisan involvement and the emergence of a link between politicians and criminals. Political parties play a crucial role in building positive links between the communities. Political parties are organizations where people are free to express their opinions and ideals publicly. The democratic social structure and political parties give people the chance to express their opinions.

From Table 1 we can see communal riots have increased in India between 2019–2020. A major increase can be seen in communal/religious incidents and riots is 96%.

With a particular focus on understanding the psychological effects of these events on individuals and communities, the goal of this systematic review and synthesis of the literature on communal riots in the Indian context is to identify patterns, common themes, and variances in psychological outcomes associated with communal violence in India.

<table>
<thead>
<tr>
<th>Table 1 Rioting Offences (Courtesy: NCRB Data, 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nature of Offence</strong></td>
</tr>
<tr>
<td>Rioting while in “andolan/morcha”</td>
</tr>
<tr>
<td>Rioting/attacks on police personnel or Govt. servants</td>
</tr>
<tr>
<td>Other riots</td>
</tr>
<tr>
<td>Communal/religious incidents</td>
</tr>
</tbody>
</table>

**Methods**

Search Strategy and Selection Criteria

Our study protocol was pre-specified and registered in PROSPERO (PROSPERO: CRD42023480295). We adhered to the PRISMA standards, which are the recommended reporting elements for meta-analyses and systematic reviews. This systematic review is conducted on communal riots and their psychological impact on the Indian population so all study was chosen based on the Indian context. Studies that were written in English and distributed in scholarly journals were selected. All study types, including cross-sectional and longitudinal, qualitative and quantitative, were covered in this investigation.

The research needed to provide a report any psychiatric diagnoses, admissions, prescriptions, symptoms, or distress of those directly or indirectly impacted by a recognized collective action to fulfil the requirements for inclusion in the outcome. Studies based on labor conflicts were left out because they sought to alter how resources or positions were distributed within an organization. Events involving protracted, paramilitary wars orchestrated by states or individuals with state-like characteristics were also disregarded.
Searches were conducted in Science Direct, PubMed, Web of Science, Google Scholar and PsycINFO for studies released between the beginning of each database’s existence from 2000 to 2022. We also looked through the references in the retrieved publications to find other studies. Search terms included “riots”, “protest”, “unrest”, “civil disorders”, “demonstration”, “revolution”, and “campaign”, as well as terms for social movements that use collective activities as a strategy, such as “social movement”, “political movement”, and “socio-political movement”. These were used to find prospective publications addressing group activity and mental health results, in addition to phrases like “mental health”, “mental disorders”, “behavioral symptoms”, and “psychological”. An illustration of the thorough search plan is shown in Table 2.

Table 2 Electronic Search Strategy for PubMed

<table>
<thead>
<tr>
<th>Database</th>
<th>Search</th>
<th>Filters/Limits</th>
</tr>
</thead>
</table>

Note: The author provides access to the whole search methodology for every database as well as the search findings.
Abbreviation: Mesh, Medical Subject Headings.

After retrieving, the published articles were independently reviewed by the researcher for inclusion, and any disagreements were settled. The researcher first looked at the titles and abstracts to evaluate if the publications fit the inclusion requirements. The complete texts of the articles were carefully reviewed after the first two rounds of screening, and those that met the exclusion criteria were eliminated.

Evidence Grading
The Newcastle-Ottawa Scale (NOS), which is advised by the Cochrane Collaboration for the assessment of non-randomized trials, was used by the author to independently grade the standard of methodology across all included research. Concerning earlier adaptations, the NOS was updated for the evaluation of cross-sectional research quality.

Synthesis of Results
The data have been summarized by outcomes related to mental health. The researcher prioritized findings from longitudinal studies first, and where none were available, we evaluated cross-sectional studies with high NOS values under systematic review procedures. We prioritized data based on random samples taken from the general population when determining the incidence of mental health outcomes.

Results
Description of Studies
There were 1189 items found in the first search. We found 41 papers after implementing the prerequisites for inclusion and exclusion and looking through the research contained in the reference lists (Figure 1). A total of 23,132 persons were involved in this study, which included 16 cross-sectional, 4 systematic reviews, 4 surveys, 3 observational, 3 exploratory, 3 epidemiological, 3 explanatory mixed methods, and 5 qualitative research (not including time series and qualitative studies without a sample size specification). Table 2 and “Supplementary Table 1” summarise the study designs and main findings from all the selected research.
Sample Characteristics

Eight studies used random samples, some drawn from the general population,\textsuperscript{14,15} others by sex,\textsuperscript{16,17} remaining from affected communities.\textsuperscript{18,19} This research includes a representative sample study that illustrates the nation’s diversity, considering factors such as age, gender, ethnicity, urban-rural distribution, and socioeconomic status. Inclusivity is vital, encompassing various geographic regions: Northern, Southern, Eastern, and Western India. Moreover, urban and rural populations, as well as tribal communities, are also included for a comprehensive view. The number of study participants ranged from 17 to 22,377, with ten studies having participants greater than 5000, twelve investigations involving over than 300–850 individuals, six studies recruiting a population of more than 150, as well as two studies with less than 100 participants.

Examination of Mental Health Outcomes

From Table 3 we can check that the most often examined outcome was depression and mental health concerns, which were noted in a third of the studies (n = 20, 48.78%), followed by post-traumatic stress disorder (PTSD) (n = 5, 12.19%) and anxiety disorder/anxiety symptoms (n = 6, 14.63%). Other effects included an increase in alcohol use disorder, homelessness, and a high chance of poverty. (Table 3).
Discussion

This is, as far as we are aware, the first comprehensive analysis of collective activities and mental health. The two most often researched mental health consequences of mass actions, riots, and social unrest are depression and PTSD.15,20–22 Notably, the frequency of depression and PTSD after mass gatherings appears to be equivalent to those who have been victims of violence, riots and social unrest in both the general population and among victims of violence.15,20,23,24 Individual characteristics (such as poor socioeconomic status, female sex, psychological resilience, health status, and social support), the nature of the event itself (such as being exposed to violence, coverage in the media, and level of engagement), and post-event situations (such as loss of personal as well as social resources), Unemployment rates were indicators of risk for psychopathology following collective actions.14,16,25–28

According to some evidence (n = 5; 12% of the included studies), collective acts might also linked to enhanced mental health, including a reduction in depression and suicides.18,29–32 This conclusion might be clarified by the fact that when individuals voice their frustrations collectively, it can be cathartic. Additionally, stronger social links among subpopulations that are either in favor of or against the collective action’s cause might improve social bonds, which in turn could mitigate the negative effects of the stressful environment.18,31,32

<table>
<thead>
<tr>
<th>Study Design</th>
<th>Number of Studies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-sectional</td>
<td>16 (25)</td>
</tr>
<tr>
<td>Qualitative studies</td>
<td>5 (12)</td>
</tr>
<tr>
<td>Surveys</td>
<td>4 (10)</td>
</tr>
<tr>
<td>Systematic Review</td>
<td>4 (10)</td>
</tr>
<tr>
<td>Observational</td>
<td>3 (7)</td>
</tr>
<tr>
<td>Exploratory</td>
<td>3 (7)</td>
</tr>
<tr>
<td>Epidemiological</td>
<td>3 (7)</td>
</tr>
<tr>
<td>Explanatory mixed methods</td>
<td>3 (7)</td>
</tr>
</tbody>
</table>

**Sample size**

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Number of Studies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–100</td>
<td>2 (5)</td>
</tr>
<tr>
<td>100–300</td>
<td>6 (15)</td>
</tr>
<tr>
<td>300–850</td>
<td>12 (29)</td>
</tr>
<tr>
<td>≥5000</td>
<td>10 (24)</td>
</tr>
</tbody>
</table>

**Outcome**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of Studies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression and mental health</td>
<td>20 (49)</td>
</tr>
<tr>
<td>Post-traumatic stress disorder (PTSD)</td>
<td>5 (12)</td>
</tr>
<tr>
<td>Anxiety disorder</td>
<td>6 (15)</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>5 (12)</td>
</tr>
<tr>
<td>Homelessness</td>
<td>5 (12)</td>
</tr>
<tr>
<td>High chance of poverty</td>
<td>4 (10)</td>
</tr>
</tbody>
</table>

Notes: *Time series studies and qualitative research without a sample size specification have been eliminated. †The number of research is more than just 41 since some of them looked at several outcomes.*
Therefore, different means must be used for nonviolent collective action to affect health. The effect of riots on mental health might be explained by the stressors and stress assessment processes.\textsuperscript{33} Stress reactivity refers to an increased risk of mental illness following stress exposure, whereas stressors are operationalized as external pressures that test a person’s potential for adaptation.\textsuperscript{14,34,35} The first domain of the Research Domain Criteria matrix\textsuperscript{36} recognizes the significance of stress reactivity in the appearance of mental diseases. As an outcome, exposure to stress and an individual’s stress response might be seen as the causes of threat for mental health illnesses after collective activities.\textsuperscript{14,18} Conflicts between individuals and the interruption of healthcare services are examples of how collective activities may create stress.\textsuperscript{37,38} Similar to this, the function of social relationships in reducing stress may help to explain the protective impact of social support.\textsuperscript{39–41}

**Strengths and Limitations**

Although completing small-scale investigations cannot indicate the incidence of psychological morbidities in this research, this review has methodically documented existing data, highlighted the research gap, and highlighted the necessity for more in-depth research. However, there are some limitations to our review. In comparison to the population in India, the population that some researchers we synthesized addressed is small. In addition, the majority of the research was cross-sectional, and the techniques and instruments employed varied widely. Therefore, it is impossible to generalize the results of these investigations. Cross-study comparisons are challenging since various mental health metrics were used in the research. According to Galea and Maxwell (2009), validated standardized measures or diagnostic interviews should be used in future research to evaluate mental health. Lastly, even though Higgins and Green (2012a) of the Cochrane Collaboration suggest using the NOS to assess the excellence of non-randomized research, the NOS was only intended for cohort and case-2 studies. However, to evaluate cross-sectional research, the NOS has been adjusted in light of earlier evaluations.\textsuperscript{11,12} Another limitation of this study is that the articles included in the review were screened by a single reviewer. The lack of additional reviewers may have increased the likelihood of bias or oversight in the selection of papers, despite attempts to assure completeness and correctness in the screening process. Multiple reviewers might improve the robustness and dependability of the literature review process in future research.

In conclusion, according to this systematic study, within the previous three decades, there has been very little community-based research on issues related to mental health among indigenous groups. Of them, even fewer studies focused exclusively on tribal communities. A limited range of mental health issues, primarily alcoholism, anxiety, depression and suicide were explored by these investigations. Despite the rise in collective activities throughout the world and their known effects on mental health,\textsuperscript{3} collective actions are frequently underappreciated as a sociopolitical factor influencing mental health. The assessment of how communal activities affect mental health and the underlying mechanisms has just recently started in the literature. Therefore, it would be appropriate to research this new area of study.

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**Disclosure**

The author declares no conflicts of interest in this work.

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