

Review Article | ISSN (0): 2582-631X

DOI: 10.47857/irjms.2024.v05i02.0412

# Emotional Intelligence and Social Interaction – A Bibliometric Analysis

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#### **Abstract**

The focus of the present study is to evaluate and review the documents on Emotional Intelligence and Social Interaction published in the Scopus database. The keywords used to obtain the documents are "Emotional Intelligence" and "Social Interaction". This study performs bibliometric analysis on 284 articles published between the years 2000-2023. It is evident from the findings that publications related to emotional intelligence and social interaction have been steady for the past few years and there is a need in the rise for research in this field as social interaction is the basis for any social outcome. The bibliometric analysis shows that the top cited article with 570 citations is 'Emotion regulation abilities and the quality of social interaction'. The most influential authors are Green, Michael F. and Horan, William P. The top influential countries are the United States and the United Kingdom and the top sources are the Journal of Personality and Social Psychology and Personality and Individual Differences. The study provides implications for future researchers based on the literature review and bibliometric analysis carried out and highlights the need for in-depth research on emotional intelligence and "social interaction" from a sociological and socio-psychological perspective.

**Keywords:** Bibliometric Analysis, Emotional Intelligence, Social Interaction, VOSviewer.

#### Introduction

Social Interaction is the core and the most essential aspect in the formation of a society. Without Social Interaction, the existence of a society is questionable. Despite its distinction, a prominent approach to quantifying social interactions is unaccounted for. This is because the nature of social interaction is dynamic and cannot be placed under one particular construct. Social Interaction is a Sociological concept that predominantly arose through the Social Interactionist Theory by Lev Vygotsky (1) and the Symbolic Interactionism Theory constructed by George Herbert Mead (2), who analysed social life from a pragmatistic perspective (3); it is the foundation of all streams that involve any living beings. People use different components that interact socially, and researching these components will provide information on the focus of people's social lives (4).

Multiple studies have proven that there is an association between social outcomes such as social networks (5-7), social support (8-11) and Emotional Intelligence. Emotional competencies play a major role in social interaction because emotions are used to expressively communicate the thoughts and intentions of people during

various encounters (12). Navigating one's social life can be effective when the emotional information and dynamics are intelligently processed. Yet, the competencies inherent in individuals vary from person to person. Emotional intelligence competencies are essential for one to adapt to the various paradigms of social life. There are umpteen studies on emotional intelligence, and there is a lack of validity on the emotional expression of humans in different social settings based on one's social status, culture, social class, and role conflicts.

The present study aims to evaluate the documents published on emotional intelligence and social interaction in the Scopus database using bibliometric analysis and literature review. It also aims to provide implications for future research based on the literature review and the bibliometric analysis results.

#### **Literature Review**

The collective feelings of psychological, emotional, cognitive and physiological motives are the emotional capabilities of an individual (13). A human's perception of their emotional Intelligence

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(Received 21st December 2023; Accepted 23rd April 2024; Published 30th April 2024)

is an important component of their social interaction (14). The different forms of emotions such as fear, sadness, anger, joy etc. have been recognized and are important features of human behaviour, but the application of these emotions to consciously have a productive social interaction has not been commonly used (15). Social interaction has rarely been explicitly taken as a variable of interest despite being the medium through which any type of learning and development takes place. One study shows that shifting participants' perspectives from individual to collective helps facilitate positive social interaction (16). Studies have also found that the use of social media has brought about profound changes in the patterns of social interaction in contemporary society (17). Another study pointed out that there are fluctuations in different social interactions. Social interactions can either be cognitive or socio-emotional. (18). Familiarity with different mediums and motivation (19), which is important component of **Emotional** Intelligence, also contributes to the increase in the level of social interaction (20).

The theoretical development of emotional intelligence became widely known because of the ability model developed by Mayer and Salovey which is the foundational theory on emotional intelligence and the mixed model developed by Daniel Goleman which highlights the importance of EI to be successful as it has multiple subskills that need to be developed. The concept of social interaction also involves theories such as social

exchange theory and social learning theory. Emotional Intelligence can help shed a light on the exchanges and interpersonal relationships of individuals on an everyday basis and also how they learn to adapt their social behaviours in various context.

## Methodology

The data used in the current bibliometric analysis was obtained from the Scopus database. Only the Scopus database was selected as it is the most reliable database worldwide, as it publishes works and articles from reputed journals. The keywords "emotional intelligence" and "social interaction" were searched within the Article title, Abstract and Keywords in the documents search option. The number of documents obtained was 354. The search was then refined based on the source type as journals and was limited to the documents published in the English language which is the inclusion criterea. Any documents from the above search which were not published in journals and were published in other languages were excluded for the analysis in the current study. The final number of documents used in the bibliometric analysis was 284. The bibliometric analysis was done using VOSviewer software. The different analysis that were done in the study are cooccurrence based on author keywords, citations based on documents, co-authorship based on authors, bibliographic coupling based on countries and co-citations based on sources. The research method can be found in Figure 1.

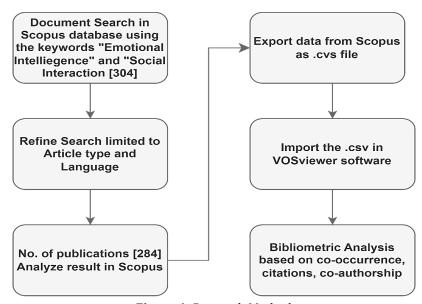


Figure 1: Research Method

The bibliometric approach in the current study is only to evaluate the documents related to the research topic of emotional intelligence and social interaction to find gaps for further research and to provide implications for future researchers which is the objectives of the study. Hence, the bibliometric approach was selected. This vouchers to the reliability and the validity of the approach used and the results obtained from the data used from the scopus database.

#### Results

The data analysis that was performed with VOSviewer is described in this session. VOSviewer is a specialised software tool used for precise bibliometric analysis. The bibliometric analysis comprises an initial stage that will showcase the citation outcomes. Subsequently, it will incorporate a collaborative evaluation of cocitations and co-authorship based on their respective keywords, authors, sources and countries.

#### **Publications** per year

Figure 2 displays the number of publications in the current research topic each year. The data shows that the first publication linking Emotional Intelligence with Social Interaction was in the year

2000 in the Scopus database. The publications on the topic have varied from the year 2011. There was a fall in the number of publications between the years 2016 – 2018 and rose again in 2019.

#### **The Most Cited Documents**

Table 1 displays the list of the top ten cited documents on the topic of emotional intelligence and social interaction in the Scopus database. The paper titled 'Emotion regulation abilities and the quality of social interaction' which was published in the year 2005 has the highest number of citations.

# **Visualisations of Co-occurrence Based** on Keywords

Figure 3 displays the network visualisation of cooccurrence based on author keywords. The minimum number of times a keyword has to appear was selected to 3. Out of 870 keywords, 58 met the threshold. The below image shows that the keywords such as social cognition, empathy and social intelligence were linked to emotional intelligence and these are the basic qualities to possess to have a social interaction. The documents consisted of 58 items, 9 clusters and 214 links and the total link strength was 334.

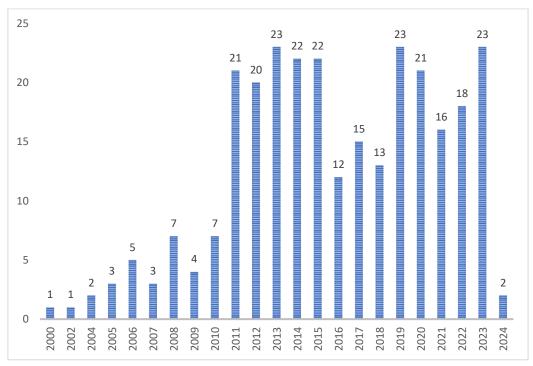


Figure 2: Number of Publication per Year

**Table 1:** Most Cited Publication Titles

Publication Title	Year	Cited by
Emotion regulation abilities and the quality of social interaction	2005	570
Relational Regulation Theory: A New Approach to Explain the Link	2011	528
Between Perceived Social Support and Mental Health		
Emotional intelligence and social interaction	2004	523
Virtual reality social cognition training for young adults with high-	2013	402
functioning autism		
The science of emotional intelligence	2005	340
Social Cognition in Schizophrenia, part 1: Performance across phase of	2012	324
illness		
Increasing emotional competence improves psychological and physical	2011	280
well-being, social relationships, and employability		
A longitudinal analysis of patterns of adjustment following peer	2002	280
victimization		
Sleep deprivation reduces perceived emotional intelligence and	2008	269
constructive thinking skills		
Social cognition in psychosis: Multidimensional structure, clinical	2011	223
correlates, and relationship with functional outcome		

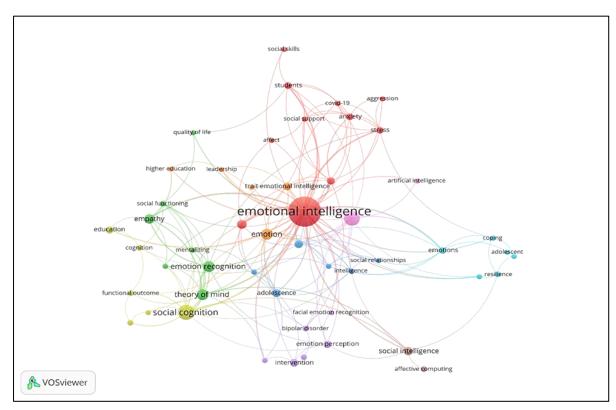


Figure 3: Network Visualization of Co-occurrence based on Keywords

Figure 4 displays the Overlay Visualization of cooccurrence based on author keywords. The dark colour purple indicates the keywords used in research the previous years and the lighter colours such as light green and yellow indicate the keywords used in recent years in research. It is evident from the image that keywords such as social intelligence, social support and perception that support social interaction have become the highlight of research linked with emotional intelligence.

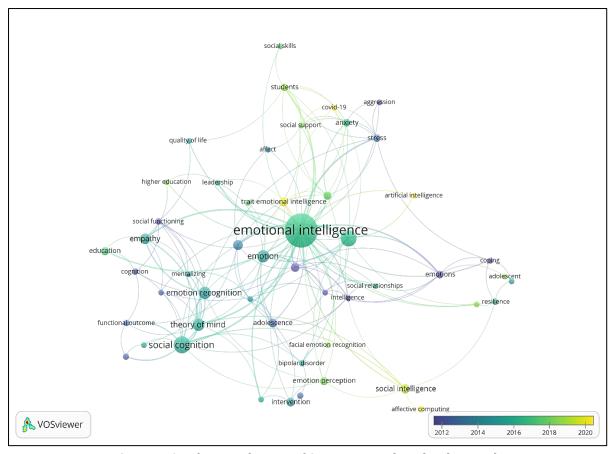


Figure 4: Overlay Visualisation of Co-occurrence based on keywords

### Co-authorship based on Authors

Table 2 displays the top co-authorship based on authorship based on authors. The most influential authors with the highest number of citations are Green, Michael F. and Horan, William P.

#### **Most Influential Countries**

Table 2: List of Co-authorship based on Authors

The most influential countries based on bibliometric coupling and citations are presented in Table 3. Figure 5 displays the top citations by countries. The top three influential countries on the topic are the United States, United Kingdom and Canada.

Author	Documents	Citations	
Green, Michael F.	6	820	
Horan, William P.	5	807	
Kern, Robert S.	4	791	
Lee, Junghee	3	568	
Sugar, Catherine A.	3	568	
Sergi, Mark J.	3	607	
Lopes, Paulo N.	4	1151	
Salovey, Peter	4	1482	
Schutz, Astrid	3	572	
Brackett, Marc A.	3	559	

**Table 3:** Bibliometric Coupling Based on Countries

Country	Documents	Citations
United States	109	6804
United Kingdom	28	1287
Canada	17	1207

Germany	22	1112
Italy	12	700
Spain	24	319
France	7	204
Australia	17	672
Netherlands	9	698
Belgium	5	383

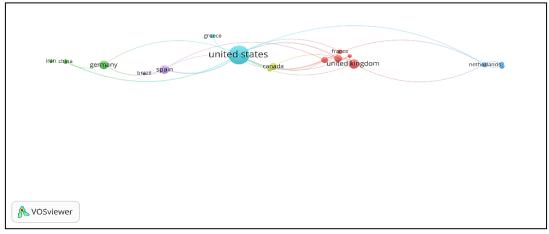
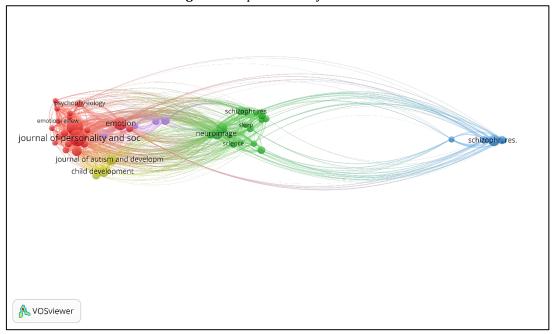


Figure 5: Top citations by Countries



**Figure 6:** Top Sources by Citations

#### **Most Influential Sources**

The most influential sources based on co-citations are displayed in Figure 6. The top journals based on co-citations are the Journal of Personality and Social Psychology and Personality & Individual Differences. The top influential sources based on citations are Emotion and schizophrenia bulletin.

#### **Discussion and Conclusion**

Though there are several publications in the field of emotional intelligence, it is clear from the above bibliometric analysis that there are not many publications directly linking emotional intelligence and social interaction. The concept of social interaction is implied from the co-occurrence of keywords such as social intelligence, social cognition, and social functions. When the impact of various variables on the outcome due to social interaction is studied, the question arises of why there is a dearth of publications directly focusing on social interaction. The findings also show that future exploration of the potential of emotional

intelligence in social interaction is essential. Many empirical studies from psychological sociological perspectives need to be done. Moreover, the majority of the studies using the term "social interaction" have been done from a medical perspective, exploring a patient's rehabilitation and social adaptation undergoing treatment. This perspective cannot be generalised to the overall population as the studies are situation-based. This again highlights the need for research on "social interaction" in the everyday situations of different populations with factors such as culture, institution, social status and different roles played by the individuals. The gap in the body of knowledge and the bibliometric analysis also points out that only one study has directly focused on emotional intelligence and social interaction. This study also shows that there is a need to study emotional intelligence and the micro process of social interaction rather than just the macro process.

The research holds significant implications for understanding human behaviour on an everyday basis. It helps enhance interpersonal relationships by contributing to successful social interaction. It also helps foster effective communication by navigating social interaction with empathy and being sensitive to the emotions of others. It also addresses the societal challenges in the topic of social interaction. By studying emotional intelligence and its influence on intergroup dynamics, strategies for the development of social cohesion and cooperation can be found by researchers, educators and trainers.

One of the drawbacks of the selected methods is that the documents from only one database has been selected. There could be more research on the specified area in other databases as well. This drawback paves way for researchers to explore the topic from various other databases.

The development in emotional intelligence and social interaction research has been analysed using bibliometric analysis. The current analysis uses a total of 284 documents from the Scopus database. The data shows the annual changes in the publications on emotional intelligence and social interaction. The majority of the articles with a high number of citations have been published in reputed, high-quality international journals. In terms of influence, Green, Michael F. is the most productive and influential author with a total of 6

documents. There has been a rising trend linking emotional intelligence to social cognition, social functioning and social relationships, which have evolved from social interaction. The bibliometric analysis provides insights into the need for indepth research linking emotional intelligence and social interaction. This study serves as a resource for future researchers to study and illuminate advances in the present study area. The findings also imply that the researchers and practitioners should be updated on the topic's findings in the social sciences field. The findings can also help researchers and authors to collaborate and partner with influential authors in this field of study.

#### **Abbreviation**

Nil

#### Acknowledgement

The researcher is thankful to the Research Guide and Peers who gave insights on how to extract data, analyse and write a bibliometric paper.

#### **Author Contributions**

**Ida Merlin J** - Conceptualization, Methodology, Software, Investigation, Resources, Data curation, Writing—original draft preparation; **Prabakar S** - Writing—review and editing, Supervision

#### **Conflict of Interest**

The authors declare that there is no conflict of interest.

#### **Ethics Approval**

Not Applicable

#### **Funding**

Not Applicable

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