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GLOBAL SPOTLIGHT OF STUDENTS AND TEACHERS WELL-BEING: A BIBLIOMETRIC VIEWPOINT

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Abstract

Maintaining a healthy mental state is an essential component of overall well-being in both the classroom and the workplace. This research presents a bibliometric analysis of research on students' and teachers' well-being, focusing on a global perspective. The study examines the scholarly literature published between 1993 and 2023, as indexed in the Web of Science database. The analysis encompasses academic contribution and the performance of students' and teachers' well-being. The results reveal that the research on well-being has grown substantially in recent years, particularly in response to the COVID-19 pandemic. The study highlights the importance of a global perspective in well-being, as it reveals different patterns and trends across regions and countries. The theory of Self-Determination provides a valuable framework for understanding and promoting teachers' and students' well-being by addressing their innate needs for autonomy, competence, and relatedness. This study will help the students and teachers pay attention to effective time management and avoiding addiction that is detrimental to sustainable well-being. Finally, the paper offers insights for future research directions and highlights the need for more interdisciplinary and cross-cultural collaborations in this field.

Keywords: Well-being, Student, Teacher, University, Bibliometric, Global, Self-Determination Theory.

1 INTRODUCTION

In recent years, more focus has been placed on ensuring that students and teachers are healthy and safe in the classroom [1]. The COVID-19 pandemic, as a devastating blow, has brought to light the critical nature of addressing students' and teachers' emotional and psychological well-being [2]. Maintaining a healthy mental state is an essential component of overall well-being in both the classroom and the workplace.

The recent pandemic has underscored the critical need for educational institutions to prioritize providing mental health resources and support systems [3]. Further, Granziera, Martin & Collie [4] studied the association between the teacher's well-being and student achievement. The results show a negative association between the teacher's emotional exhaustion and the student's academic achievement. Also, Zhang et al. [5] examined the mediation role of the teacher-student relationship and their well-being. They suggested that the higher institutions' policymakers should improve the teacher's social-emotional competence, enhance their well-being, to promote the teacher-student relationship.

Earlier literature contributes immensely to the research on well-being. However, a recent study by Olaleye & Olaleye [6] discovered a gap in the global literature on students' and teachers' well-being as they only focused on a single country (Finland). This study intends to fill this vacuum by aggregating intercontinental literature and probing the global significance of well-being research in higher institutions. This study also applies the self-determination theory to the insight from global literature on students' and teachers' well-being. This study suggests that educational policymakers prioritize students' and teachers' health and happiness as this move will benefit both groups. The study discussed limitations and proposed future studies.

The Theory of Self-Determination

Theory of self-determination proposition explained that people are driven to act by three fundamental psychological needs. They are the *need for autonomy*, the *need for competence*, and *the need for relatedness* [7]. The health and motivation of students and faculty members can be improved by creating an environment that caters to these requirements.

Self-determination is a psychological concept that refers to the innate human drive to control one's life and make decisions that affect oneself. The theory of self-determination was developed to explain this innate human drive. It suggests that people naturally need autonomy, competence, and relatedness, all essential for their well-being and development.

According to the self-determination theory, people have a fundamental need to have the sense that they are in control of their lives and the decisions they make and that the things they do have meaning and a purpose in their lives. When individuals perceive that their needs for autonomy, competence, and relatedness are being met, they may likely experience positive outcomes such as increased motivation, improved mental health, and improved performance. On the other hand, when individuals do not meet these needs, they may experience unfavorable outcomes such as decreased motivation, lower self-esteem, and decreased well-being.

Applications of the self-determination theory can be found in many different fields, such as education, athletics, health and wellness, and organizational behavior, amongst others [8]. It is used to help individuals and organizations understand how to create conditions that promote personal growth, achievement, and fulfilment and identify the factors that may be hindering progress and well-being.

Within educational institutions, self-determination can be utilized to improve students' and teachers' health and happiness [9]. For the benefit of the students, the objective is to establish a setting that caters to their inborn needs for autonomy, competence, and relatedness. This objective can be accomplished by giving students a chance to make their own decisions and selections, helping them achieve success and mastery in their coursework, and encouraging them to cultivate positive relationships with their classmates and instructors. The incorporation of student input into the planning of lessons, the provision of tasks that are challenging but still within the student's capabilities, and the establishment of a supportive learning environment are all ways in which teachers can foster self-determination.

In the case of teachers, the self-determination theory can be utilized to support their own needs for autonomy, competence, and relatedness, thereby improving their overall sense of well-being. This process can include giving teachers the autonomy to make decisions about their teaching practices, providing professional development opportunities to help teachers improve their skills, and cultivating an upbeat and encouraging workplace culture.

Educational institutions can improve students' overall well-being, as well as students' motivation and engagement, and create a learning environment that is positive and fulfilling when they encourage self-determination for both students and teachers [10].

2 METHODOLOGY

This research employed quantitative methodology and used the Bibliometric workflow in the existing literature [13]. The study began by searching for articles in the Web of Science database search engine, focusing on academic papers' titles, abstracts, authors, and keywords. University* student well-being OR wellbeing OR wellbeing AND university* teacher well-being OR wellbeing OR wellbeing search strings were utilized.

The search output of the initial search was 1206. There was an exclusion of 286, including conference proceedings, book chapters, and reviews, while 165 papers were excluded based on other languages besides English. Lastly, 575 academic papers were included with the date extraction from 1993 to 2023 and used for the data analysis with Biblioshiny App [11] through RStudio App.

The results show some years with no articles (like 1999) and others with many articles (such as 2022). There is a general trend of increasing numbers of articles over time, with some fluctuations and variations from year to year. There has been a notable increase in articles from 2015 onwards, with a substantial shift from 2019 to 2020 and a further increase in 2021 and 2022. There may be multiple factors to be clarified why this increase occurred, such as changes in publishing trends, disruption of other research fields, advancements in technology, or shifts in research focus.

Table 1. Literature Screening.

Inclusion and Exclusion Criteria	Web of Science
Search Strings	University* student well-being OR university* student wellbeing OR university* student well being (Topic) AND university* teacher well-being OR university* teacher wellbeing OR university* teacher well being (Topic)
Search Output	1206
Exclusion Criteria	Article (Document Types) and 2023 or 2022 or 2021 or 2020 or 2019 or 2018 or 2017 or 2016 or 2015 or 2014 or 2013 or 2012 or 2011 or 2010 or 2009 or 2008 or 2007 or 2006 or 2005 or 2004 or 2003 or 2002 or 2001 or 2000 or 1998 or 1997 or 1996 or 1995 or 1994 or 1993 (Publication Years) and English (Languages)
Exclusion of other publications except for articles	286
Exclusion of other years except 1993-2023	
Exclusion of other languages except for English Language	165
Total Exclusion	451
Final Inclusion for Bibliometric Data Analysis	575

3   RESULTS

A bibliometric literature review is an essential tool for researchers and policymakers alike. It can help identify research trends, evaluate research impact, identify potential collaborators, facilitate literature searches, and inform policy decisions. Bibliometric analysis can help researchers identify research trends in a particular field, including the most productive authors, journals, and institutions. By identifying research gaps and opportunities, researchers can focus their research on areas likely to be of more significant impact. Also, bibliometric analysis can be used to evaluate the impact of research by measuring the number of citations a particular article or author has received. This information can be used to assess a particular study's impact or evaluate a researcher's productivity.

Further, bibliometric analysis can help researchers identify potential collaborators by identifying authors who have published on similar topics. These topics can benefit researchers looking to collaborate on a project or seeking advice on a particular research question. Bibliometric analysis can identify critical articles in a particular field, making it easier for researchers to conduct literature searches and stay current on the latest research. Bibliometric analysis can also inform policy decisions by identifying areas of research that are likely to have the most significant impact. This insight can benefit policymakers looking to allocate resources to areas that are likely to have the greatest impact.
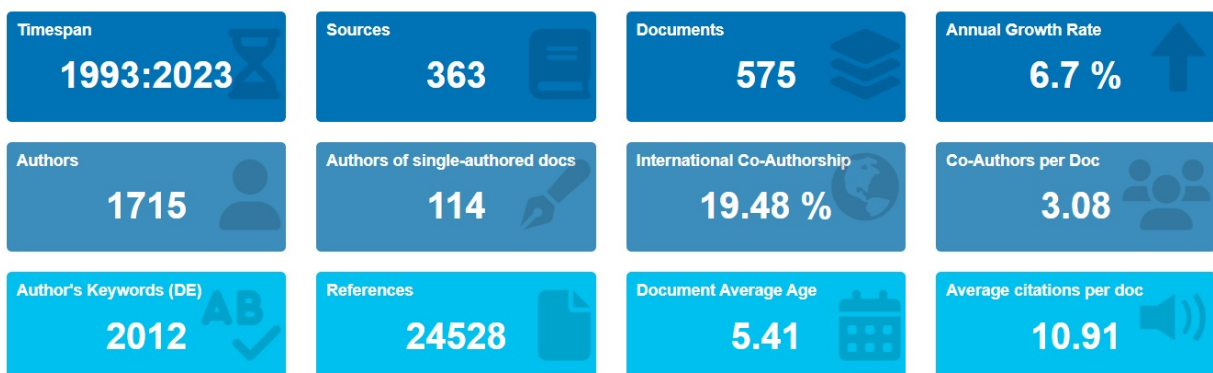
Timespan	Sources	Documents	Annual Growth Rate
1993:2023	363	575	6.7 %

Authors	Authors of single-authored docs	International Co-Authorship	Co-Authors per Doc
1715	114	19.48 %	3.08

Author's Keywords (DE)	References	Document Average Age	Average citations per doc
2012	24528	5.41	10.91

Figure 1. Descriptive statistics of global students and teachers' well-being literature.
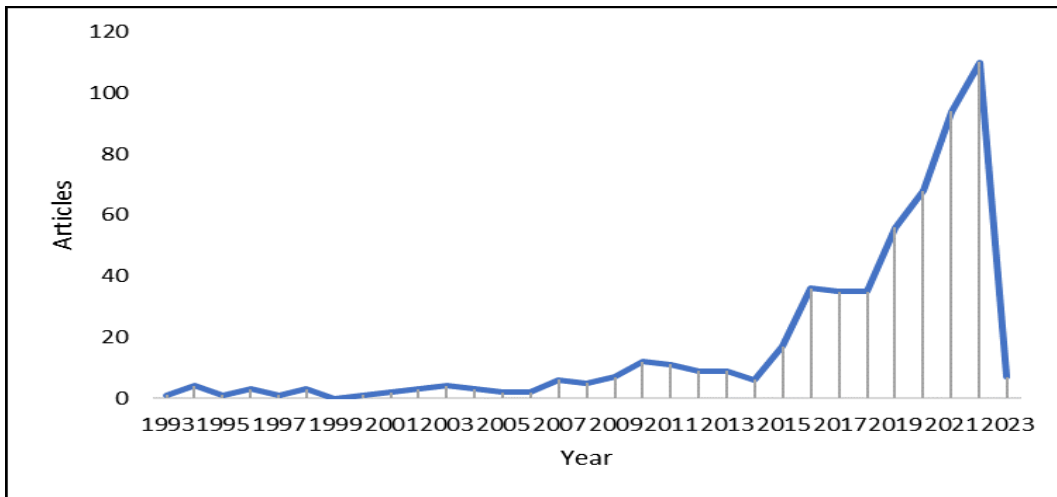
Figure 2. Annual production of well-being literature in Finland.

Figure 2 shows the number of articles published yearly from 1993 to 2023. There are some years with no articles (such as 1999) and others with many articles (such as 2022). Overall, there is a general trend of increasing numbers of articles over time, with some fluctuations and variations from year to year. There has been a notable increase in articles from 2015 onwards, with a substantial jump from 2019 to 2020 and a further increase in 2021 and 2022. It needs to be clarified why this increase occurred, as there may be multiple factors that contributed to it, such as changes in publishing trends, advancements in technology, or shifts in research focus. Additionally, there are a few years (such as 1993 and 1995) with very few articles published. This table provides information about the number of articles published over time and may help track publishing trends or understand a particular field's history.
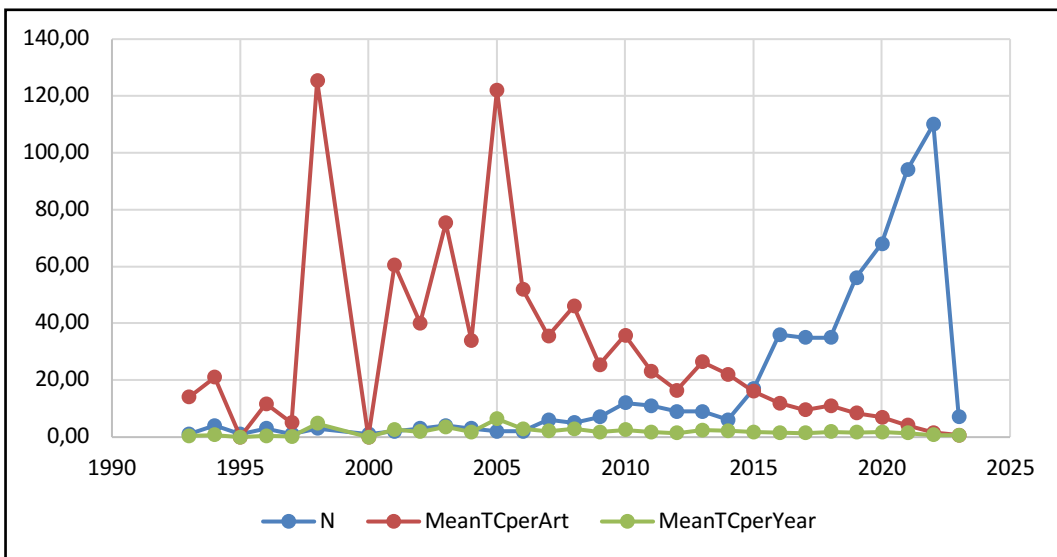

Figure 3. Average Citations per year.

Figure 3 shows the number of publications, mean total citation per article, and mean total citation per year. In Figure 3, there is a wide range of N values, with some years having very few publications (such as 1993, 1995, 1997 and 2000 with only one publication) and others having a large number (such as 2022 with 110). The mean total citation per article values varies widely, ranging from 0 in some years to over 125.33 in others. It is also notable that the mean total citation per article values tend to decrease over time, with higher values in earlier years and lower in more recent years. This result may suggest a trend of decreasing citation impact over time. However, other factors may influence these values that are not immediately apparent from the Figure. The mean total citation per year values also shows some variation, although generally lower than the mean total citation per article values. This result is to be expected, as the mean total citation per year measures the total citations per year across all articles published that year. At the same time, the mean total citation per year is a measure of the total citations per individual article. This Figure provides insight into

publication trends and citation impact in a student's and teacher's well-being field.
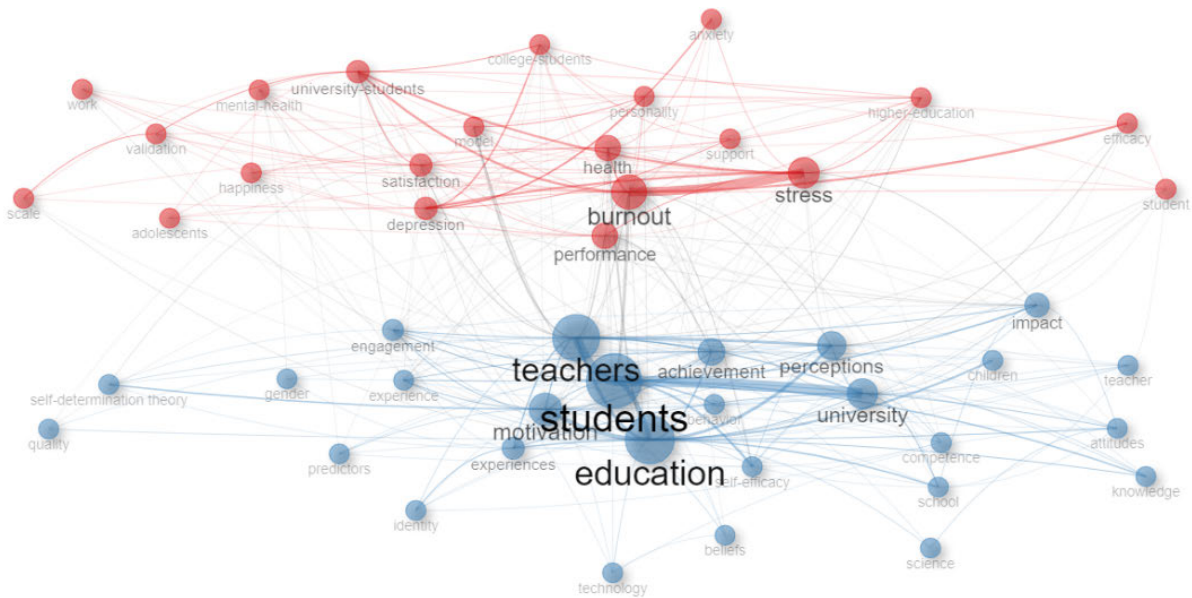

Figure 4. Co-occurrence Network.

Figure 4 shows the two clusters of the co-occurrence network of the author's keywords. Each cluster represents a node in the graph, and the connections provide different measures of the node's importance in the network. Each cluster provides three different measures of node importance Betweenness, Closeness, and PageRank. Betweenness measures the extent to which a node lies on the shortest path between other nodes in the graph. Nodes with high betweenness can be considered "bridges" between different network parts. Closeness measures how close a node is to all other nodes in the network. Nodes with high closeness are central and can communicate more easily with other nodes. PageRank is a measure of the importance of a node based on how many other essential nodes link to it. Nodes with high PageRank are connected to other essential nodes and are, therefore, more critical. These measures can provide insights into the structure of a network and the relative importance of different nodes within it.

Figure 5. Thematic Map.

- Motor Themes

  The first quadrant to the upper right contains the motor themes, which are well-developed themes essential to the structure of the student's and teachers' well-being research field. These themes are distinguished by their high centrality and high density. There were not many "motor" themes, but the ones that were present were "burnout," "stress," and "health," and they are located along the axis of the fourth quadrant.

- Niche Themes

  The second quadrant to the upper left is theme that is well-developed and very specialized topics, but they are only a small part of the overall field. In this context, there are two clusters of Niche themes. The first cluster was central ("feedback", "learning environment", and "residents"), while the second one was to the density ("disability" and "disease"). It would appear that "knowledge translation" is the overarching theme of this quadrant.

- Emerging or Declining Themes

  Peripheral themes are found in the third quadrant, including developing and fading themes. They are characterized by low density (not fully developed) and high centrality (marginal). "Conceptualization", "time", and "addiction" are included in this section of the quadrant.

- Basic Themes

  The basic themes that make up the fourth quadrant are those with a high centrality but a low density. These are themes that are vital to the field of students' and teachers' well-being, but they still need to develop fully. They are primarily concerned with overarching topics, such as "language" and "Covid-19," in the first cluster, while "student", "education", and "teacher".
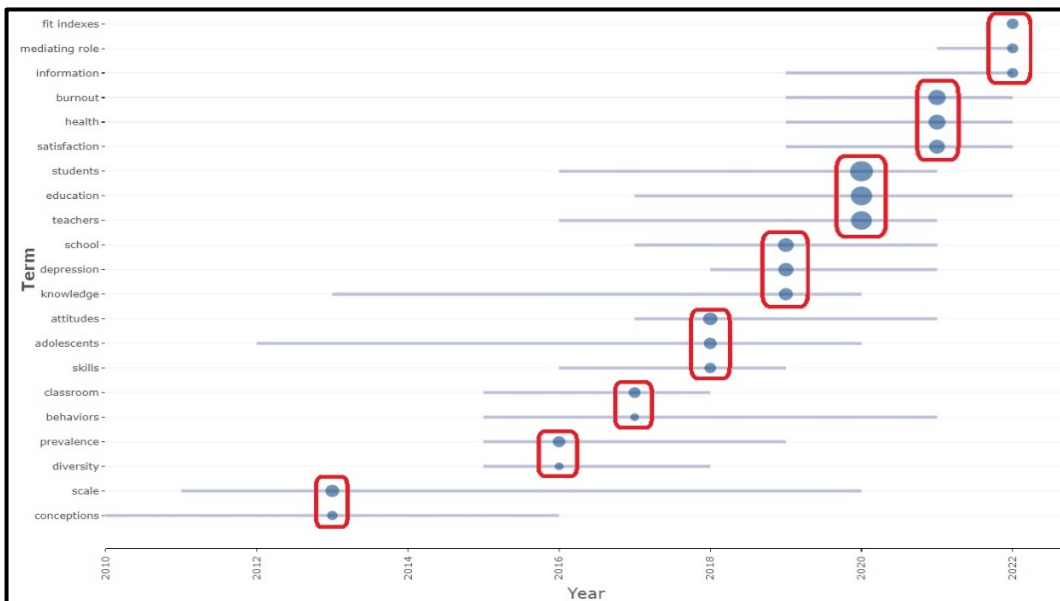

Figure 6. Trend Topics.

In Figure 6, the most frequent item is "students", with a frequency of 71. The item with the second-highest frequency is "education", with a frequency of 58, followed by "teachers", with a frequency of 56. The earliest year in which an item appears is "conceptions" in 2010, and the latest year in which an item appears is "fit indexes," "information," and "mediating role" in 2022. The median year for all items falls between 2018-2020, except "fit indexes," "information," and "mediating role," which all have a median year of 2022. The earliest quartile (Q1) for most items is between 2015-2017, while the latest quartile (Q3) for most items is between 2020-2021. However, there are some exceptions, such as "scale," which has a Q1 of 2011 and a Q3 of 2020, and "conceptions," which has a Q1 of 2010 and a Q3 of 2016.
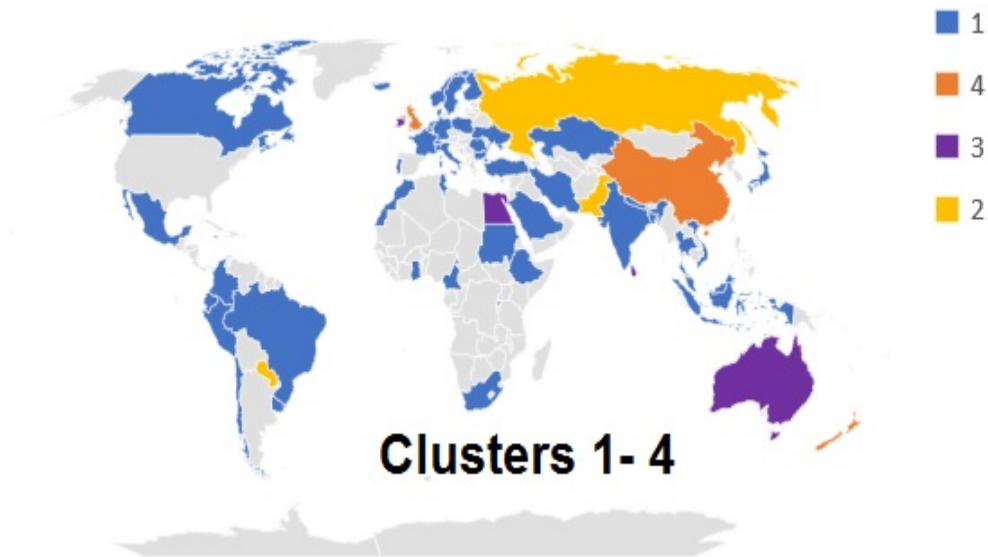
Figure 7. World Collaboration(a).

In the world collaboration map (Figure 7a), Cluster 1 is the biggest with 101 world collaborations. Cluster 3 had ten world collaboration while Cluster 2 had nine and the least is Cluster 4 with four countries (China, New Zealand, United Kingdom, and Italy). The world collaboration map legend matches the cluster numbers with the corresponding countries. On the other hand, Figure 7b shows intercontinental primary collaborators. Australia, China, and USA had 14 collaborators while Spain and the UK had 12 collaborators. Italy took the third position in ranking with 9 collaborators. Figure 7b clearly show the continental research gap of student and teacher's well-being.

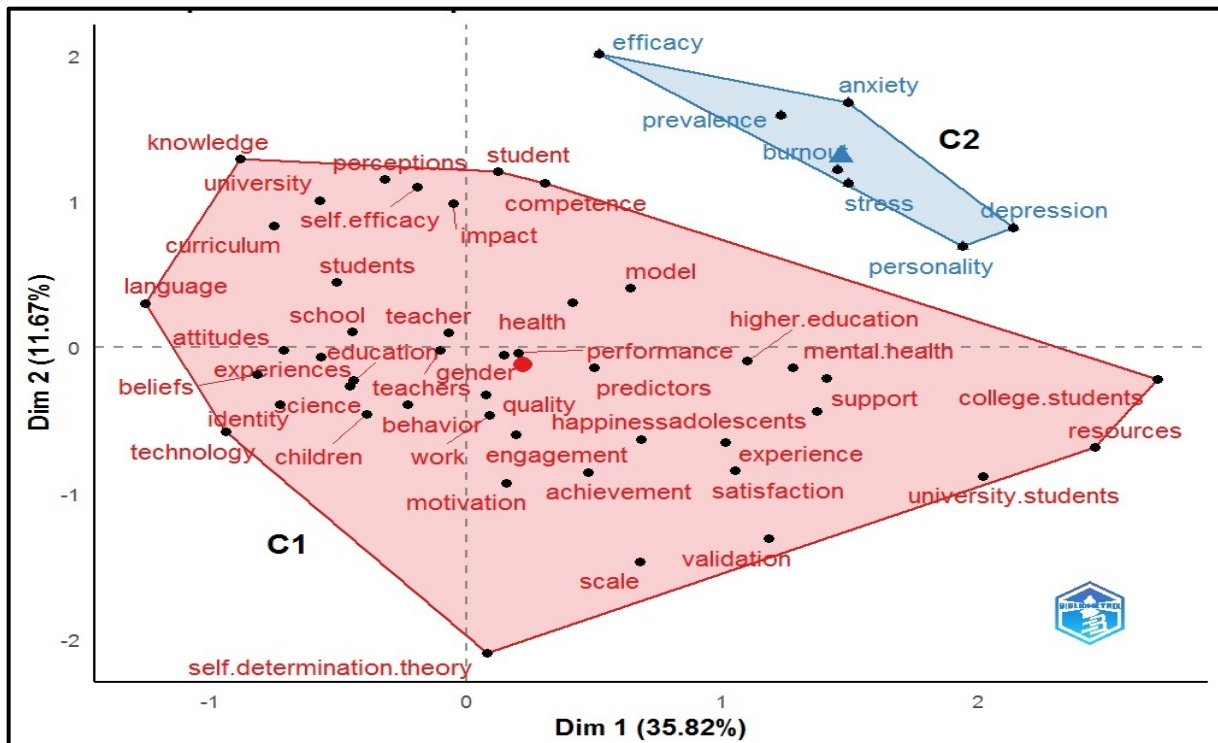| Argentina	Australia	Brazil	Canada	China		Legend
1	14	2	2	14		North America
						South America
Finland	France	Germany	Ghana	India		Europe
2	1	5	1	2		Asia
						Africa
Indonesia	Italy	Japan	Korea	Malaysia		Oceania
1	9	3	1	2		
Mexico	Morocco	Netherlands	Oman	Peru		
2	1	2	1	1		
Romania	Russia	Saudi Arabia	South Africa	Spain		
2	3	4	3	12		
Sweden	Turkey	UAE	UK	USA		
1	3	2	12	14		
Ukraine						
1						

Figure 7. World Collaboration(b).

Figure 8. Conceptual Structure Map.

The Multiple Correspondence Analysis, or MCA, was performed on all the keywords that were part of the dataset utilized. Figure 8 presents the conceptual structure of the keywords associated with the articles on students and teachers' well-being. It condenses a large amount of data that contains multiple variables into a space that has a lower dimension, thereby producing an understandable graph that is two dimensional in this context and makes use of the plane distance to reflect the degree of similarity between the keywords.

The closer a keyword is to the center of the circle, the more attention that keyword has received over the past few years [12]. The results are interpreted based on the relative positions of the points and their distribution along the dimensions; the closer two words are represented in the map, the more similar their distributions are to one another [11]. Cluster 1 (red) is predominant and the most significant of the three clusters. Cluster 1 with keywords that revolve around university, higher education, university students. teachers, resources, curriculum, language, technology, self-efficacy, competence, impact, attitudes, experiences, behaviour, engagement, motivation, satisfaction quality, happiness, and keywords about research on scale, validation, model, and self-determination theory. Some elements of self-determination theory are reflected in this cluster. Cluster 2 (in the blue color) consists of seven keywords that concentrate personality, depression, stress, burnout, prevalence, anxiety, and efficacy.

4   CONCLUSIONS

Students and teachers' well-being has become a global spotlight recently, as concerns about mental health, stress, and burnout have increased. A bibliometric viewpoint allows the authors to examine literature and understand how it has evolved over time. A bibliometric analysis shows that academic publications related to students' and teachers' well-being have increased significantly in recent years. This result suggests a growing recognition of the importance of this issue and a need for more research and intervention. The literature on students' and teachers' well-being encompasses various disciplines, including education, psychology, sociology, and public health. This interdisciplinary approach highlights well-being's complex and multi-faceted nature and the need for a holistic approach.

This study shows students' and teachers' research significance in global higher institutions. The academic papers in this field are growing steadily, and there was a gradual shift in 2010 and a spike in 2022. As the number of academic papers is increasing, likewise the intercontinental collaborations. This study shows research gaps in different continents, but Africa was predominant. Time management and addiction are essential emerging themes in this study, and these two factors are contenders for students' and teachers' well-being if not adequately managed. It was noted in a recent study [6] that the growth

rate of a single country in Europe was zero, but the global study shows 6.7%. It is with mixed feelings that some countries are yet to be visible in the research arena of well-being in the context of students and teachers, while some countries are near saturation.

This study contributed to the literature on well-being by showcasing global progress and gaps in academic publications. It also shows the significance of this study, as the publications have been growing yearly since 1993. Further, the theory of Self-Determination provides a valuable framework for understanding and promoting teachers' and students' well-being by addressing their innate needs for autonomy, competence, and relatedness. This study will help the students and teachers pay attention to effective time management and avoiding addiction that is detrimental to sustainable well-being.

This study has limitations. The study only used the Web of Science database, which indicates that some academic papers may not be included in this study. The future study should work on this limitation by combining databases for literature search. This study could also be a preliminary study that will stir an empirical study. The future study should use quantitative study in higher institution settings as a follow-up to this study. The future study could conduct a comparative study across continents and countries.

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